## IV. Summary of SCOH Ballots & Surveys

<table>
<thead>
<tr>
<th>Tracking Number</th>
<th>Date Created</th>
<th>Subject</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW-09-10</td>
<td>05/28/2009</td>
<td>Volunteer for Strategic Planning Workgroups!!</td>
<td>52 member departments were sent this survey and in the 18 day period from Thursday, May 28, 2009 to Monday, June 15, 2009. 9 members volunteered and completed the form during this time.</td>
</tr>
<tr>
<td>HW-09-11</td>
<td>6/05/2009</td>
<td>Ballot: NTCIP 1103 v02, Transportation Management Protocols (TMP) – Version 02</td>
<td>During a 32-day period (Friday, June 05, 2009 to Monday, July 06, 2009). 40 members voted to approve the standard.</td>
</tr>
<tr>
<td>BD-09-24</td>
<td>6/05/2009</td>
<td>Notification of HW-09-11: Ballot: NTCIP 1103 v02, Transportation Management Protocols (TMP) – Version 02</td>
<td>No objection to SCOH making the final decision.</td>
</tr>
<tr>
<td>BD-09-25</td>
<td>6/09/2009</td>
<td>AASHTO Board of Directors’ Ballot on the FY 2010 Program for the NCHRP</td>
<td>All programs were approved.</td>
</tr>
<tr>
<td>HW-09-12</td>
<td>6/10/2009</td>
<td>Program Management Constant - Infrastructure Projects</td>
<td>During a 16-day period (Wednesday, June 10, 2009 to Thursday, June 25, 2009) 38 members completed responses to the survey during this time. SCOH answered the question: Does your State DOT (or any internal division/administration) utilize the services of a Program Management Consultant for infrastructure projects? YES–12–31.6% NO–26–68.4%</td>
</tr>
<tr>
<td>HW-09-13</td>
<td>8/11/09</td>
<td>Annual Meeting Survey on SCOH Possible Attendance</td>
<td>During a 59-day period (Tuesday, August 11, 2009 to Friday, October 09, 2009) 47 members completed responses. Results indicate we should have a quorum to conduct business on October 24, 2009.</td>
</tr>
<tr>
<td>HW-09-14</td>
<td>9/23/09</td>
<td>Draft SCOH Strategic Plan to SCOH members for comment.</td>
<td>A message approved by Neil Pedersen, MD (Vice-Chair) was sent on his behalf to the Standing Committee on Highways Members enclosing a draft of the strategic plan for review by each member in preparation for the annual meeting.</td>
</tr>
<tr>
<td>HW-09-15</td>
<td>9/24/09</td>
<td>Standing Committee on Highways Ballot: <em>Bridge Design Guide Specifications for GFRP Reinforcement, 1st Edition</em></td>
<td><em>Do you approve or disapprove the publication?</em> This question has been asked of the SCOH members. 34 have voted and the ballot remains open until Monday, October 26, 2009. URL: <a href="http://downloads.transportation.org/GFRP-1%20SCOH.pdf">http://downloads.transportation.org/GFRP-1%20SCOH.pdf</a></td>
</tr>
<tr>
<td>BD-09-33</td>
<td>9/24/09</td>
<td>Notification to the BOD on SCOH ballot HW-09-15 <em>Bridge Design Guide Specifications for GFRP Reinforcement, 1st Edition</em></td>
<td>To date the AASHTO BOD has no objections to SCOH making the final decision on this ballot.</td>
</tr>
<tr>
<td>HW-09-16</td>
<td>10/02/2009</td>
<td>HSM Ballot</td>
<td>The SCOH ballot is due on Friday, October 30, 2009. AASHTO ask that SCOH vote on the entire Manual selecting &quot;yes,&quot; &quot;yes with comment,&quot; or &quot;no with comment.&quot;</td>
</tr>
</tbody>
</table>
V. Activity Reports

SUBCOMMITTEE ON BRIDGES AND STRUCTURES

Officers
- Chair: Malcolm T. Kerley (Virginia)
- Vice Chair: Kevin Thompson (California)
- Secretary: M. Myint Lwin (FHWA)
- Assistant Secretary: Raj Ailaney (FHWA)
- AASHTO Liaisons: Ken Kobetsky & Kelley Rehm

Summary of Activities and Accomplishments:

The 2009 Annual Subcommittee on Bridges and Structures (SCOBS) Meeting was held in New Orleans, Louisiana on July 5-10, 2009. During this meeting, the twenty (20) SCOBS Technical Committees met to conduct technical committee business, followed by a two-day general session meeting of the full Subcommittee to review ballot required changes, additions to the design specifications, and guide documents maintained by the Subcommittee. The Subcommittee also hosted a Chairman’s lecture on “New Orleans: Four Years After Katrina”. The lecture provided an insight into how a devastating storm can not only challenge a community but also provide opportunities.

During the general session, members of the Subcommittee leaving the Subcommittee, either retiring or promoted, were recognized for their service. Also during the general session meeting, the full Subcommittee voted on 50 technical agenda items, of which three were withdrawn and remaining were passed.

The Subcommittee addressed the recommendations from National Transport Safety Board (NTSB) concerning the I35W accident. The Subcommittee adopted changes to the Load and Resistance Factor Design (LRFD) Construction Interims and Temporary Works Guide for use by bridge owners to ensure that construction loads and stockpiled materials placed on a structure during construction or maintenance projects do not overload the structural members or their connections while considering their current field conditions that account for section loss, deterioration of capacity, and any alterations to the structure. Also, “Findings of the investigation into the I35W accident indicated that a focus on connections of non-load path redundant steel trusses was prudent”, and thus the Subcommittee updated the Manual for Bridge Evaluation (MBE) to add that analysis of gusset connections of truss bridges be preceded by a field investigation of gusset plates at all truss joints. In addition, the AASHTO Guide to Commonly Recognized Structural Elements (CoRE) was updated to include a category on Gusset Plates / Truss Connections. In response to the NTSB recommendation to work with the Federal Highway Administration to develop and implement a bridge design quality assurance/quality control program, a white paper was presented. The information for the synthesis was collected by surveying State transportation agencies on their QA/QC practices when using consulting services for bridge design as well as states’ in-house designs. The Subcommittee chair has presented a recommendation in a letter to Federal Highway Administration for development and implementation of a “Bridge Design Quality Assurance/Quality Control Program”. The letter was signed by AASHTO’s Executive Director and sent to the FHWA Administrator in August. The Subcommittee feels that recommendations H-08-21, H-08-22, H-08-24, and H-08-25 from NTSB were fully addressed. The ballot items referenced above will be incorporated into the various AASHTO documents and available in print within the next 12 months. The remaining recommendations, H-08-20 and H-08-23, will be addressed in the near future in coordination with the Federal Highway Administration. The QA/QC program and the gusset plate research are not expected to be completed within the next year, and at the completion of the research the appropriate material will be considered to be included in future publications. A letter outlining AASHTO’s progress on the NTSB recommendations resulting for the I35W Bridge investigation was drafted, signed by AASHTO’s Executive Director and sent to the Acting Director of the NTSB in August.
The Subcommittee adopted the FHWA publication “Road Tunnel Design and Construction Manual” as an AASHTO Manual. The manual was developed to provide guidance to practicing engineers doing design, construction, and maintenance work on roadway tunnels and was previously reviewed by the Technical Committee on Tunnels (T-20).

The Subcommittee voted on four research recommendations by T-11 that support the grand challenges of the 2005 Strategic Plan for Bridge Engineering to meet the changing needs of bridge engineering through a streamlined research program. The four proposals that were approved for the next NCHRP Program are Development of System Fracture Analysis Methods for Fracture Critical Steel Bridges; System Performance of Accelerated Bridge Construction Connections in Moderate to High Seismic Regions; Development of new AASHTO LRFD Tunnel Design Specifications; and Self-Consolidating Concrete for Cast-In-Place Bridges and Tunnels.

The Executive Committee held its second meeting. This Committee, which is comprised of the SCOBS officers and technical committee chairs and chaired by SCOBS Chair, was formed to assist the SCOBS Officers in making business decisions, planning, and setting priorities, as well as to improve communications between the technical committee leadership and chairs and resolve issues of importance to SCOBS. The Committee discussed several issues including prioritizing the publication of the subcommittee’s specifications and other documents.

SCOBS was given the opportunity to review and comment on the 2009 Standing Committee on Highways (SCOH) Draft Strategic Plan. In response to this opportunity, SCOBS discussed the Draft Strategic Plan during their annual Business Meeting in July 2009. During the same meeting, the SCOBS Executive Committee (comprised of all the SCOBS Technical Chairs, Officers, and AASHTO and FHWA liaisons) further discussed the Plan Objectives. Following the meeting the SCOBS members were asked to provide comments on the objectives. The comments were compiled and presented to the Chair of SCOH in August.

SCOBS has made significant steps towards the implementation of the Load and Resistance Factor Rating (LRFR) methodology for rating bridges designed with the LRFD specifications, and for improving the ratings of existing bridges. FHWA has set a date requiring all new bridges designed by LRFD to be load rated using LRFR by October 2010, and will be encouraging the rating of existing bridges using LRFR whenever a new load rating is performed.

SCOBS will continue to focus on the development and deployment of new technologies and materials to better utilize investments in the nation’s bridges and other highway structures. High performance materials (including high performance steel, concrete, and fiber reinforced polymer composites), accelerated construction methods (using prefabricated components and systems), and rapid foundation excavation and construction technologies are among the innovative features which should be considered in bridge design and construction practices and specifications. SCOBS will also work to ensure the use of improved bridge inspection, evaluation, and management technologies for the existing inventory of bridges and other highway structures. Among these are improved technologies related to non-destructive evaluation and assessment of bridge components, and in data acquisition and management.

Internal committee resolution passed for information only:

RESOLUTION TITLE: SUPPORT FOR AND ENDORSE NATIONAL INDUSTRY CERTIFICATION PROGRAMS - STRUCTURAL BRIDGE COMPONENTS AND PROCESSES

WHEREAS, the State Departments of Transportation (DOTs) recognize that it is in the public interest to ensure that fabricated structural components made for highway, transit and pedestrian bridges are manufactured to the high standards to ensure safety through consistency of results and quality; and,

WHEREAS, the State Departments of Transportation rely on proven certification programs in accepting fabricated structural components, and such certification programs have as their goals: training and evaluation of personnel, evaluation of production and quality control procedures as measured against national industry standards and agency specification requirements; and,

WHEREAS, it is accepted that nationally recognized technical institutes are comprised of membership representing all segments of bridge stakeholders and develop consensus standards for their industries; sponsor
relevant research; draw upon and energize established technical committees; publish technical training, design, and standards manuals; have staff positions held by engineers and subject experts; and qualify and monitor their third-party independent auditors who are trained to provide critical assessment and bring consistency to their work; and,

WHEREAS, such certification programs have as additional goals, continuous quality improvement, the identification of best practices, the discovery of potential problems and issues and the dissemination of these topics to the entire industry; and,

WHEREAS, AASHTO bridge design and rating specifications are developed and calibrated to levels of safety provided by the quality inherent to such industry certification programs; and

WHEREAS, reductions in DOT staff and the wider use of performance based construction specifications will lead to increased effort to evaluate and assess quality; and, now, therefore, be it

RESOLVED on the occasion of the 2009 General Meeting of the AASHTO Subcommittee on Bridges and Structures, the members in attendance express their support for and endorse national industry certification programs for personnel, production and quality control related to fabricate structural bridge components and processes.

The next annual meeting will be held in Sacramento, California on May 23-27, 2010. Other future meetings of the Subcommittee have been scheduled in the following states: 2011 in Virginia, 2012 in Texas, and 2013 in New Jersey.

Schedule on New/Recent/Updated Publications

Below is a table showing the publication schedule of new, recent, and updated bridge publications:

<table>
<thead>
<tr>
<th>Queue Order</th>
<th>Publication</th>
<th>New Title/ New Edition/ Interim</th>
<th>Status</th>
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</table>
| 1           | AASHTO LRFD Bridge Design Specifications                                     | New Edition*                    | Est. project start: 8/17/2009  
Est. to tech review: 9/3/2009 (4-wk. review)  
Est. to press: 10/1/2009  
Est. to mbr. shipment: 11/12/2009 |
| 2           | AASHTO LRFD Bridge Construction Specifications                              | New Edition*                    | Est. project start: 10/2/2009  
Est. to mbr. shipment: 12/17/2009 (4-wk. review) |
Est. to mbr. shipment: 1/11/2010 (3-wk. review) |
| 4           | AASHTO Guide for Commonly Recognized (CoRe) Structural Elements             | Interim                         | Est. project start: 11/19/2009  
Est. to mbr. shipment: 1/21/2010 (3-wk. review) |
Est. to mbr. shipment: 11/23/2009 (3-wk. review) |
Est. to mbr. shipment: Spring 2010 (3-wk. review) |
Est. to mbr. shipment: 2/1/2010 (4-wk. review) |
| 8           | AASHTO LRFD Seismic Bridge Design Specifications                            | Interim                         | Est. project start: Winter 2010  
Est. to mbr. shipment: Spring 2010 (3-wk. review) |

*New titles and new editions must be reviewed and approved by SCOH.
HIGHWAYS SUBCOMMITTEE ON CONSTRUCTION

Officers
Chair: Gary Ridley, ODOT
Vice Chair: Claude Oie, Nebraska, DOR
Secretary: Julius (Butch) Wlaschin, FHWA
AASHTO Liaison: Jim McDonnell, AASHTO

Summary of Activities and Accomplishments from October 2008 to September 2009:

General
1) The SOC continues to participate in expert task groups, national task force, FHWA, AASHTO, industry, and other joint committees.
2) Meeting agenda is developed for SOC annual meetings.

Contract Administration Section
During the past year, the Contract Administration Section members:

1) Updated the spreadsheet on State DOT Use of Price Adjustment Clauses. A summary is posted at the following site: http://www.fhwa.dot.gov/programadmin/contracts/2007aashto.cfm.
2) Assessed current practices and provided good examples of value engineering change proposals. A summary of successful practices in value engineering change proposals is posted at the following site: http://www.fhwa.dot.gov/ve/2008/practices.cfm#s08 (see “Value Engineering Change Proposals”).
5) Surveyed the states to update the Claim Certification Questionnaire last coordinated by Alabama DOT in 2007. A summary will be available on the SOC website.
6) Surveyed state practices concerning adverse weather impacts. A summary will be available on the SOC website.
7) Analyzed cost trends associated with contract overruns including managing and providing design feedback. A summary of the survey responses will be available on the SOC web site.

Computers and Technology Section
1) Surveyed state of the practice in electronic project documentation, as-built documentation, and archiving (types of native files – scans or editable documents).
2) Participated in promoting traffic modeling (e.g. CA4PRS) efforts to improve work zones in urban corridors at macro level. Participated in the development of a workshop including design and construction engineers to increase awareness of modeling software and technologies to integrate into plans and specifications.
3) Developed a survey regarding innovative material testing/acceptance procedures in use (e.g. use of nuclear density gauges for acceptance, other NDT for pavement acceptance, maturity meters, asphalt segregation measurement, use of contractor test results, machine controlled grading, thermal cameras, intelligent compaction, NDT to replace coring pavement etc.)
4) Surveyed State DOT responsible office on the use of profilers, blanking bands, verification of profile results, use of incentives in specifications and certifying equipment and operators.

Roadway & Structures Section

1) Continue reviewing the amount of time inspectors are spending doing work other than inspecting to determine if there are areas that can be improved upon and/or if there is value in the non-inspection work being done. The Survey is ready to go. Steve Mueller will send the survey to David Sadler by September 15 and he will get it out by October 1. SCOH Strategic plan #8.

2) Obtained and summarized current best practices for inspection and measurement of workmanship, and prepare recommendations for the QA program guide. Current update of report was presented. Need to add guidance on dispute resolution. Greg will lead completion of report and be ready to present for 2010 meeting. SCOH Strategic plan #2

3) Develop a Survey of various practices of reviews (constructability, VE, Contractor solicited input, and post construction feedback) to improving the quality and effectiveness of plan sets. Market the result of this effort to DOT's. Catalog Various Best-Practices. Survey results coming. David Hoyne will lead effort to get results out by middle of September. SCOH Strategic plan #2

4) Support Construction academy. SCOH Strategic plan # 8

5) Survey states on workforce retention and succession planning, co-op, etc. SCOH Strategic plan #8

6) Help on Transportation System Preservation TSP2’s work. Roadway and Bridge Preservation stuff. Roy Rissky will check with Ken K and report back to SCOC R&S. SCOH Strategic plan #10.

7) Brent Coe will develop an estimate of the added cost of sterilization to aggregate base and for washing equipment and submit to R&S section for information. SCOH Strategic plan #2

8) Mike Ricca, LA DOT, Asked if other states were experiencing cracking in BT 78s longer than 135 ft. David Sadler, FL DOT stated that FL is using a new shaped girder with a broader base. Recommend a Synthesis on current issues involving long concrete beams. Look at NCHRP report. SCOH Strategic plan #2

9) Design propensity to go to longer piles. Balance between larger spans. Long piles / big equipment. Contracting method vs material cost. Recommend research project. SCOH Strategic plan #2

10) David Sadler lead. Mike Ricca, LA DOT, In Louisiana Material paid as stockpiled material was stored off site and Hurricane Katrina destroyed the stockpiled material. LA courts ruled that LADOT’s “act of God specs” covered the stored material and LA had to pay for the off site material. LA has since revised their specification to clarify that material must be on site before ACT of god spec covers it. Discussed issues with stockpiled material being paid but material not being on site. Recommend survey on stockpiled material issues. SCOH Strategic plan #2

Environment and Human Resources Section

Environmental Stewardship

1) Selection of appropriate BMP’s for specific applications - Auburn University. Partner with Center for Environmental Excellence. Lead: Barry Fagan – AL
   Status: Still active. Carry over to 2010. Dr. Zech from Auburn University indicated the facility testing will start testing products this coming November 2009.

2) Resubmit Domestic Scan for Storm Water and Pollution control (SWPPP & NPDES). Lead: Jeff Lewis – FHWA
   Status: Task completed. Proposal was submitted November 14th 2008 to AASHTO in which it was accepted in coordination with the AASHTO-SOE – Subcommittee on Environment. Scan was titled “NCHRP 20-68A, Scan 08-03 DOMESTIC SCAN PROGRAM. Best Practices in Addressing NPDES and Other Water Quality Issues in
Highway System Management”. Scan’s field travel started on July 11th, lasted 2-weeks and was completed July 24th, 2009. States visited included: NY, RC, MD, NC, TX and FL. Draft Scan report is due out on August 10th. Six months before final report is expected to come out.

3) Survey of State DOT’s for existing processes that were developed to resolve fines, consent decrees, etc. Lead: Frances Hood - ID
   Status: Task completed. Power point presentation was given to the section by Frances.

4) Participate in NCHRP 25-25 Environmental Stewardship project. Lead – Jim Tynan - NY
   Status: Still active. Carry over to 2010. Need to verify the 25-25/47 Report is all this activity was to accomplish or is this an annual carryover? NCHRP Project 25-25 / 47 - Compendium of Best Practices for Incorporating Environmental Commitments into Transportation Construction and Maintenance Contract Documents is completed and will be posted on NCHRP weblink:

Work Zone Safety

1) Survey of positive protection used in mobile operations for highly mobile work zones (IE, striping operations, BALSI BEAM). Lead: Bernie Kuta – FHWA
   Status: Still active. Carry over to 2010. Related to activity #2 below.

2) Report from Texas Transportation Institute (TTI) on new/innovative work zone items that FHWA will help market. EHR section members to review/comment on the report to help it address state concerns/buy-in. Byron Coburn – VA, Chuck Correa – AK, Lead: Bernie Kuta – FHWA
   Status: Still active. Carry over to 2010. Related to activity #1 above.

Human Resources

1) Attend meetings of the Transportation Curriculum Coordination Council (TCCC) and coordinate issues of interest. Douglas Townes – FHWA
   Status: Task completed. Presentation given to SOC conference attendees. Jeff Carpenter volunteered to be the State DOT rep.

2) Participate on a pilot panel for a new National Highway Institute (NHI) class on “Environmental Factors in Construction.” Lead: Jeff Lewis – FHWA
   Status: Still active. NHI kick-off meeting expected to occur in fall of 2009.

Research Steering Committee

The Research Steering Committee will evaluate, develop and submit proposals for the following research programs:

1) Invasive species requirements and does anyone have productive seeds that get through the environmental permits? The RSC agreed that since the issue of addressing invasive species was raised by two SOC sections, a proposal for 20-7 funds should be prepared. The focus will be on what agencies are doing, and let other agencies know where the issues are.

2) Uses of Twitter and other social networking in transportation. How can these be used to inform people on lane closures, incidents, and delays and are there other potential applications?

3) Workforce development/retention – adequate inspection. SOC will review what has been done and if appropriate a synthesis problem statement will be developed.

4) HEC2 does not address channel migration and scour depths require deep foundations. Broaden HEC2 to address channel migration and look at the determination of scour depths because of concerns with excessive pile
lengths. SOC will check on what has been done, and if appropriate a research problem statement will be prepared. A research problem statement should be coordinated with the AASHTO Subcommittee on Design.

**Dates and Locations of Future Committee Meetings:**
Monthly Status Teleconference Meetings are conducted. Future SOC annual meetings are as follows:
2010, Burlington, Vermont
2011, Norfolk, Virginia
2012, San Francisco, CA
IV. Summary of SCOH Ballots

V. Activity Reports

Palm Desert, California – October 24, 2009

SUBCOMMITTEE ON DESIGN

Officers
Chair: Carolann Wicks, Delaware
Vice Chair: Richard Land, California
Secretary: Dwight Horne, FHWA
AASHTO Liaison: Jim McDonnell, AASHTO

Summary of Activities and Accomplishments from October 2008 to October 2009:

The Highway Subcommittee on Design (SCOD) held its annual meeting in Indianapolis, Indiana on July 19-23, 2009. The attendees were welcomed to Indiana by Michael Reed, Commissioner of Indiana DOT. The meeting was attended by 118 individuals representing 34 member departments (66), FHWA (34), and other stakeholders (18), including participants from Canada (1) and South Korea (1). For voting purposes, it is noted that a quorum was not present.

AASHTO’s Strategic Plan was accepted in May 2009. The Standing Committee on Highways (SCOH) generated a list of ten top priorities (strategic objectives) in an effort to update its strategic plan. During this meeting, SCOD identified strategic objectives from SCOH’s top ten that are relevant to this subcommittee.

Three resolutions were accepted for later e-voting:
1. Trans XMTL
2. Pipe Issues
3. Highway Lighting

The SCOD annual meeting included formal presentations and panel discussions on various topics of interest to the SCOD members, in regional meetings, and in general meeting sessions featuring presentations of regional meeting results. The meeting agenda, minutes, presentations, and other information are available at the SCOD web site at: http://design.transportation.org/?siteid=59&pageid=745.

Dates and locations of future committee meetings:
The next meeting of SCOD is scheduled for Columbia, South Carolina in 2010.

SCOD has eleven Technical Committees. Inactive Technical Committees are:
- Joint Technical Committee on Highway Lighting
- Technical Committee on Public Transportation Facilities Design

Current activity reports from active SCOD Technical Committees follow:

Technical Committee on Cost Estimating

The Technical Committee on Cost Estimating (TCCE) is continuing its work to develop practical guidance on preparing transportation project cost estimates, from project inception through design, including recommended procedures and guidance on reviewing bids prior to concurrence in award. Committee members have completed four draft chapters: Risk Based (Probabilistic) Estimating, Estimating Using Historical Bid Pricing, Cost Based Estimating, and Evaluation of Contractor Bids. These are posted on the TCCE webpage and available for use and comment: http://www.transportation.org/sites/design/docs/TCCE%20Report%20-%20A%20Practical%20Guide%20to%20Estimating.pdf

The TCCE has developed a common set of Definitions for cost estimating work to be incorporated into the practical guidance and will continue to investigate existing AASHTO definitions as well as other resources. The Definitions section of the guidance will be dynamic as additional cost estimating guidance chapters are developed.

The following chapters are under development: Introduction/Cost Estimating Basics, Parametric Estimates, Inflation Forecasting, Bidding Strategies for Cost Control, and Performance Measures and Tracking. A 20-7 research project, Task 278 – Production of the new AASHTO “Practical Guide to Estimating,” will soon be under
contract to compile the existing work and fill in the knowledge gaps to complete the guidance. The research project completion is anticipated in late 2010. Because of short funding for this project, the actual guide book might not be fully completed for publication.

Committee members are serving on a review panel for another 20-7 research project, Task 274 – Price Indexing in Transportation Construction Projects. The kick-off meeting with Jack Faucett Associates was held on September 17, 2009. Information from this project will be added to the guidance as appropriate.

The TCCE continues to review NCHRP Report 574, “Guidance for Cost Estimation and Management for Highway Projects During Planning, Programming, and Preconstruction” and has incorporated appropriate information into the practical guidance chapters. The committee feels the report has substantially beneficial information and recommends it as a valuable reference on estimating tools and techniques. TCCE members are involved in and staying current on other research projects related to cost estimating issues. Additional research proposals will be submitted for funding under NCHRP 20-7 in 2009: one related to contractor competition and a joint proposal with Preconstruction Management on estimating consultant design costs.

In addition, TCCE members will review the results of NCHRP 8-60, Guidebook on Risk Analysis Tools and Management Practices to Control Transportation Project Costs. The authors of this project have been selected for 20-7, Task 278, and they will be incorporating information from this project into the TCCE’s “Practical Guide to Estimating.”

Another goal for the TCCE is to maintain a cost estimating web-based clearinghouse. Links to cost estimating resources are available on the webpage listed above. The next addition will be state estimating contact names and links to their web resources. New information will be collected from an AASHTO/FHWA survey that will be circulated in late September, 2009.

TCCE members discuss current research in progress by individual states, state of the practice, and current issues affecting cost estimating during regularly scheduled teleconferences and at every annual meeting. The next TCCE meeting will be held September 22-23, 2009 in conjunction with the annual Transportation Estimators Association conference in Omaha, Nebraska. This annual meeting will include teleconference and webinar access.

**Technical Committee on Environmental Design**

Technical Committee on Design (TCED) members last met in Coeur D’Alene, Idaho one year ago. Largely owing to austere travel budgets, only 8 members were able to attend in person. A few more were able to participate in a portion of the meeting via telephone conference call.

The planned Spring 2009 meeting, to be held jointly with the Technical Committee on Hydrology and Hydraulics (TCHH) in Indianapolis was postponed until the Fall, again due to members’ inability to secure travel funding.

Periodic telephone conference calls were conducted during the year in order to keep members current on activities of mutual interest and for conducting routine committee business.

Work continues on an update of the 1991 AASHTO Guide for Transportation Landscape and Environmental Design. The Guide is being completely revamped under a contract being overseen by NCHRP Panel 15-33. TCED members conducted a comprehensive review of the draft guide last Spring and offered insightful comments that will help move the document closer to its final version.

TCED also continues to re-evaluate the various technical publications within its purview to ensure that they are current and useful. Most are considered to be satisfactory. One exception may be the Visualization guide. Since the existing Guide does not go into a great level of detail and since the technology has been advancing so rapidly, TCED will consider initiating an effort to update and expand this web-based document.

TCED values the multi-disciplinary character of its membership (roughly 1/3 Engineers; 1/3 Landscape Architects; and 1/3 Environmental Specialists) and hopes to soon fill the current vacancies (one from Region2; two from Region 3)
Names of other committees involved or with an interest in each activity:
TCED continues to seek out opportunities to work collaboratively with other Technical Committees with whom TCED has shared responsibilities and interests, including TCHH. One such example is a proposal to develop web-based guidance on new methods for retaining and using stormwater runoff in the ROW.

Dates and locations of future committee meetings:
TCED hopes to be able to reschedule its joint meeting with TCHH in Indianapolis in Fall 2009.

A joint meeting with the TRB Committee on Landscape and Environmental Design has been tentatively slated for mid-June 2009 in southern California.

Technical Committee on Geometric Design
The AASHTO Technical Committee on Geometric Design met in Nashville, Tennessee on March 22 through 24, 2009. The Technical Committee reviewed and commented on proposed additions and revisions to the Green Book for each individual chapter for the next edition.

The Technical Committee is focusing almost completely this calendar year on the next edition of the AASHTO publication, “A Policy on Geometric Design of Highways and Streets” (Green Book). The Technical Committee is still on track to finish the update of the publication for ballot purposes on or about the end of calendar 2009. The AASHTO ballot process would then be initiated during the first quarter of calendar 2010.

Research activities also continue. The Technical Committee worked jointly with the TRB Committees “Geometric Design” and “Operational Effects of Geometrics” to produce four problem statements that were submitted to the National Cooperative Highway Research Program (NCHRP) for funding consideration. These potential research projects were in the areas of federal controlling design criteria, auxiliary turn lanes, vehicle paths on horizontal transition curves, and design criteria for multi-lane loop ramps. This cooperative effort between the technical committee and the TRB committees has been of benefit to both organizations and they may consider a joint meeting in the next couple of years.

Research such as the NCHRP work done on Passing Sight Distance has been completed and will be incorporated into the next edition of the Green Book. The technical committee continues to closely monitor research such as the work on Design Speed for Intermediate and Low Speed Roads.

The Technical Committee may have another meeting in late calendar 2009 to finish work on the Green Book utilizing Saturday/Sunday for a portion of the meeting and using a central location to minimize travel cost and time out of the office for members.

Technical Committee on Hydrology and Hydraulics
The Technical Committee on Hydrology and Hydraulics (TCHH) meets semiannually. Member states take turns hosting the meetings. The committee usually meets for three days from Tuesday to Thursday. The typical agenda includes a welcome from a leader of the host state and updates from FHWA, AASHTO and NCHRP. The host state usually provides a brief technical presentation relating to local research and work on hydrology and hydraulics. During the three days, the committee works on its current revisions of the AASHTO Model Drainage Manual (MDM), reviewing the work from each member (typically the group splits in two or three to speed up the completion). The third day the group discusses state needs going around the table allowing each member to express concerns.

Following are the time and location where meetings were held with a brief summary of accomplishments.

Since October 2008
- Discussion among members of TCHH, Pipe Materials Task force from Subcommittee on Materials and Subcommittee on Bridge about the possibility to create a joint task force on pipes and pipe culverts formed by members of the three committees to coordinate work on pipe standards.
- TCHH prepared resolution for a Joint Task Force on Pipes to present to the three subcommittees for approval.
- Signed an agreement between UDOT and AASHTO for the management of contract with Roy Jorgensen Associates to complete the AASHTO Drainage Manual revision phase I.
• Collected all the funds for the AASHTO Drainage Manual Pool fund
• Rescheduled the spring meeting so the fall meeting would coincide with the Technical Committee on Environmental Design, September 09 in Indianapolis

May 5-7, 2009, Spring Meeting in Lakewood, Colorado

Despite a recession ten committee members attended the meeting, while just as many participated remotely with web-conference – the first meeting of this kind that allowed members to participate remotely.

At the meeting the committee discussed the following items:
• Financial report – the committee keeps a thorough record of all financial transaction. The committee has sufficient funds for its normal operation.
• Newsletter – The first newsletter was successfully published, the plan is to continue publish newsletter semiannually and distribute to all state hydraulics engineers.
• Bylaws – AASHTO TCHH has no bylaw but operate under SCOD strategic plan
• Scan Tours Proposal – one international and one national
• 2010 National Hydraulic Engineering Conference – Potential attendance, combined TCHH meetings, themes and schedule
• Pool fund obligation – all is up to date
• Memorandum of understanding – completed and signed
• Manual Executive Committee – formed to oversee contractual obligations and progress of AASHTO Drainage Manual

The committee prioritized problem statements to be submitted to NCHRP. Several members are NCHRP projects panel members, providing expert advice for hydraulics related research. The committee continues to receive regular updates on national research progress from David Reynaud, NCHRP project manager.

Larry Arneson from the FHWA Resource Center in Lakewood, Colorado, provides regular technology updates to our members. Larry works closely with many developers of software used in hydraulics. Two members resigned the committee: Brooks Booher, Arkansas DOT and Rae Van Hoven, New Mexico DOT.

David Moses, Chief Drainage Engineer, Kentucky Transportation Cabinet was approved by the regional steering committee as a new member of TCHH.

The Current membership according to region is as follows, for a total of 21 members:
• Region 1 – 4 members
• Region 2 – 5 members
• Region 3 – 4 members
• Region 4 – 7 members
• Canada – 1 member
• FHWA secretary – to be appointed

The 2009 fall meeting was going to be in conjunction with TCED. TCED cancelled their meeting because of limited potential attendance. TCHH decided to postpone the fall meeting to November 16 and decided to fund travel for those people whose travel was denied because of budget restrictions. At the meeting in November, Roy Jorgensen team revising the manual will meet with the full committee to get direction for the completions of the revisions.

AASHTO signed a contract with Roy Jorgensen to complete the revision to the AASHTO Drainage Manual.

Names of other committees involved or with an interest in each activity:
• TRB AFS40 – TRB Subsurface Soil-Structure Interaction
• TCED – Technical Committee on Environmental Design
• SOM – Pipe material Task Force – Chair William Bailey
• SCOB – Culverts

Dates and locations of future committee meetings:

- A series of webinars will be organized to inform members on TRB, NCHRP, AASHTO and FHWA activities.

Fall 2010 – Fall meeting in conjunction with the 2010 National Hydraulic Engineer Conference in Park City, Utah, Aug 30, 2010.

**Joint Technical Committee on Nonmotorized Transportation**

No activity report provided.

**Joint Technical Committee on Pavements**

- The highest priority this year for the Technical Committee is balloting the Local Calibration Guide for MEPDG through the technical committee, the Subcommittees on Design and Materials, and the Standing Committee on Highways.

- The Committee will also continue to work with FHWA to promote the MEPDG with the FHWA Design Guide Implementation Team (DGIT) and though venues like the Transportation Research Board Annual Meeting.
  - The purpose of the FHWA DGIT team is to raise awareness, assist, and support State Highway Agencies and their industry partners in the development and implementation of the MEPDG. The DGIT website provides information concerning the availability of various workshops, NHI courses related to the MEPDG and information about DGIT ([http://www.fhwa.dot.gov/pavement/dgit/index.cfm](http://www.fhwa.dot.gov/pavement/dgit/index.cfm)).
  - A workshop on MEPDG implementation has been held for several years and is supported by the JTCOP and by agencies which are implementing or have implemented the new procedure. Since attendance at the workshops has been excellent and states voice the benefits of the discussions, it is likely that additional workshops will be held on various aspects of MEPDG implementation.

- The JTCOP underwent some organizational efforts in 2009 that included the development of Operating Guidelines and the formation of four technical groups. These include Design and Modeling, Pavement Management Systems, Sustainability and Preservation, and Low Volume and Local Road Systems. These technical groups will have lead responsibilities in review of documents assigned to them, and in development of research needs statements.

- The Manual of Practice for MEPDG was successfully balloted in 2008. The rights to the software developed under NCHRP 1-37A have been transferred from NCHRP to AASHTO for development of AASHTOware software by the DARWinME Task Group. The JTCOP will maintain the final authoritative copy of the software and is intimately involved in the software effort. The technical committee will recommend model refinements and improvements for future DARWinME versions.

- NCHRP Project 1-43 updated the *Guide for Pavement Friction*. This guide was successfully balloted and has been published and released to highway agencies.

- A problem statement “Development of Guidelines for Conducting Forensic Evaluations of Pavements” was selected for funding under NCHRP. This problem statement was developed by the JTCOP and will be followed closely as the panel is formed.

- Modifications and updating of the Pavement Management Guide were submitted under NCHRP 20-7 and were approved for funding. These modifications include inclusion of Superpave, updating of state examples and minor revisions and were recommended by the JTCOP following a document review by three JTCOP members.

The annual meeting was held May 27-28, 2009 in Jackson Hole, Wyoming to discuss Operating Guidelines and form Technical Groups in major topic areas.

A large number of research needs were identified during the development of the MEPDG. In addition, broader pavement research and pavement business needs were developed during a research retreat in 2007. Those two lists will be merged and consolidated this year and divided by technical area for consideration by our Technical Groups.

The JTCOP anticipates submitting three research needs statements to the Subcommittee on Design: Development of a Users Guide to Pavement Management Systems, Improved Basis for Design of Pavement Rehabilitation in the MEPDG, and Design with Geogrids and Geofabrics.

Names of other committees involved or with an interest in each activity:
Regarding the MEPDG implementation team, there is interest and involvement from the Subcommittees on Design, Materials and Maintenance. Efforts in the area of Pavement Preservation are related to both the Subcommittee on Maintenance and the Technical Services Program for Transportation System Preservation (TSP2). The Joint Technical Committee on Pavement also is involved with the development of the MEPDG into AASHTOware via the DARWin-ME task group.

Dates and locations of future committee meetings:
The dates for the next meeting have not yet been finalized, but are anticipated to be in late April or May, 2010 in Kansas City, Kansas. The following annual meeting will be in New York State.

**Technical Committee on Preconstruction Engineering**

The objective of this Technical Committee is to provide a focal point and working group charged with developing guidelines for effective management of preconstruction engineering processes. These guidelines are intended to provide a systematic approach to managing resources such as time, funds, and personnel.

During the past year, the Technical Committee met once in Oakland, CA in October, 2008. At this meeting, the Technical Committee reviewed its publication *AASHTO Guidelines for Preconstruction Engineering, 1991*. The Technical Committee reviewed the publication to determine if a more in-depth review of the publication was warranted. The Technical Committee believes that revisiting this document and providing a wholesale revision would not significantly add to the body of knowledge in this area. The Technical Committee believes that providing committee reports would better serve this purpose as well as laying a foundation for a future guide. At the Oakland meeting, the Technical Committee also reviewed the SCOD Strategic Plan and developed work plans to support each of the appropriate goals in the plan.

The Technical Committee has work ongoing concerning the issue of best practices in dealing with errors and omissions. The effort has received the support of an NCHRP 20-7 project to help determine practices of the different state DOT’s. There has been interest among Subcommittee on Design participants in identifying how to deal effectively with errors and omissions. Informal discussions reveal that agencies have varying degrees of success in holding consultants accountable for extra costs when errors or oversights are identified. The panel involved in this project includes several members of the Technical Committee on Preconstruction Engineering. The Technical Committee intends to be prepared to present information on our research and work related to Errors and Omissions by the 2010, SCOD meeting.

The Technical Committee as directed by the SCOD, also is interested in working with the Technical Committee on Cost Estimating and has begun discussions with the Chair of the Technical Committee on Cost Estimating to explore how the two Technical Committees can work to advance the body of knowledge around cost estimating of preliminary engineering activities.

Other publications which are the responsibility of the Technical Committee include: *AASHTO Guidelines for Preconstruction Engineering Management, (1991), Guide to Quality in Preconstruction Engineering Management, (2002), and the Guide to Consultant Contracting, (2008).* These publications are consistently reviewed and the need for their update evaluated by the Technical Committee. The Technical Committee has already identified an interest by the Subcommittee in developing an in-depth evaluation of the current practices for addressing the issue of errors and omissions by engineering consultants. Additionally, the Technical Committee will be reviewing the Guidelines for Preconstruction Engineering Management, (1991), to determine subjects in this guide that the Technical Committee believes should be updated and reissued. This will allow more frequent, focused work product from the Technical Committee for the benefit of all AASHTO member agencies.

Names of other committees involved or with an interest in each activity:
Technical Committee on Cost Estimating – Estimating preliminary engineering costs

Dates and locations of future committee meetings:
Due to budgetary constraints, the Technical Committee will be holding monthly teleconferences through the spring of 2010 rather than a fall of 2009 meeting. A spring meeting is being planned for Louisiana.

**Technical Committee on Roadside Safety**
The TCRS is working toward the next revision of the Roadside Design Guide (RDG), which is targeted for AASHTO balloting in 2010. The Roadside Design Guide (RDG) was last revised in 2006 with an update to Chapter 6, "Median Barriers." The next updated of the RDG will include chapter updates based upon ongoing research, a new chapter for "Low Volume Roadways" and an expanded chapter for "Urban Roadside." In addition, the TCRS is pursuing a cost/benefit software update of the Roadside Safety Analysis Program (RSAP) through NCHRP 22-27. The software update is expected to be available for distribution in 2011.

The TCRS has successfully balloted the newest AASHTO Guide entitled, “Manual for Assessing Safety Hardware (MASH).” MASH updates and replaces the former NCHRP Report 350, which previously defined the safety hardware testing parameters. In addition to the successful balloting of MASH, the TCRS jointly developed an Implementation Plan with FHWA Office of Safety in compliance with Section 1408 of the SAFETEA-LU act for the implementation of the updated testing procedures on current and future safety hardware.

The TCRS members are actively involved as panel members in fourteen (14) NCHRP projects involved with advancing research for the development of guidance to be used for future RDG updates and advancement of roadside safety. The TCRS members also served on nine (9) completed NCHRP projects that are being used to update the current RDG. In addition, TCRS actively submits additional research proposals for consideration of AASHTO that will aid in the advancement of roadside safety and the understanding of hardware systems performance with regards to roadway and roadside geometrics.

Names of other committees involved or with an interest in each activity:
- Technical Committee on Geometric Design
- AASHTO/AGC/ARTBA Task Force 13
- AFB 20

Dates and locations of future committee meetings:
The Technical Committee on Roadside Safety (TCRS) will be holding a joint meeting in Rehoboth, Delaware on September 20 and 21, 2009 with AASHTO/AGC/ARTBA Task Force 13; a group that shares similar roadside safety interests and joint members from TCRS. Following this joint meeting, the TCRS will meet for its annual session on September 23, 24, and 25, 2009. The TCRS’s 2010 annual meeting is being coordinated through our Missouri DOT member for the month of September 2010 in Kansas City, Missouri.

**Technical Committee on Value Engineering**

The biennial (2009) AASHTO Value Engineering (VE) Conference was held August 30 - September 2, 2009 in San Diego California. The conference was attended by 112 individuals that represented member departments (37), FHWA (20), and other stakeholders and consultants (55). The attendees were welcomed to California by Randy Iwasaki, Director of California Department of Transportation (Caltrans). Richard Land, AASHTO SCOD Vice Chair, provided an overview of the key issues of interest of AASHTO’s SCOD and how the AASHTO VE Technical Committee aligns with SCOD’s strategic goals. Dwight Home, FHWA, Secretary of the Subcommittee on Design, provided an overview of the importance of VE throughout the nation.

The biennial conference included an AASHTO VE Technical Committee board meeting, a joint FHWA and AASHTO meeting, panel discussions on the "Future of VE in transportation" and “Cost Risk Assessment using VE (CRAVE)”, as well as 27 formal presentations on the following topics:
- Creating Value with Risk Management
- Creating Value with Risk Based Estimating
- Accelerate Delivery through Innovation
- Creating Value with Project Innovation
- Constructability Reviews using VE
- Improving Alternative Delivery with VE
- Added Value through Safety Analysis
- Getting it Right with VE and Risk Analysis

Additional Activities:
- Submitted to AASHTO draft version of AASHTO Guidelines for Value Engineering.
Revisions are currently underway to address comments

- Provided input and recommendations to FHWA Value Engineering Program Manager for qualitative performance measures and year end reporting requirements.

Dates and locations of future committee meetings:

- 2010 Annual Meeting, tentatively scheduled for sometime between July 15-October 30 in Atlantic City, New Jersey
- 2011 Biennial Value Engineering Conference, tentatively scheduled for sometime between July 15 – October 30 in New Orleans, Louisiana
**Subcommittee on Highway Transport—Leadership:**

Chair: James Lynch, Montana  
Vice-Chair: Jeff Honefanger, Ohio  
Secretary: Mike Onder, FHWA  
Liaison: Leo Penne, AASHTO

**Subcommittee on Highway Transport—Charge:**

The Subcommittee on Highway Transport is AASHTO’s trucking committee. “The Subcommittee shall be concerned with the interrelationship between commercial vehicle operations and the highway systems of the United States. It shall evaluate the degree to which the needs of interstate commerce are met by the highway systems in their current state of improvement under existing laws, policies and practices, and make recommendations that contribute to improving the efficiency of highway systems to handle commercial vehicles with due regard to public safety and the conservation and cost of the highway plant.” It is responsible for truck size and weight issues, including oversize/overweight permitting.

**Activities from October 2008 to October 2009:**

**The following topics will be highlighted:**

- **2009 Annual Meeting**— of the Subcommittee was held in Savannah, Georgia. The Subcommittee took advantage of the site to tour the intermodal operations at the Port of Savannah, one of the fastest growing container ports in the United States. The program also included speakers representing FMCSA, FHWA, the American Trucking Associations, and specific trucking sectors such as wind turbine transporters, and the special carriers.

- **Authorization Policy**—SCOHT members participated in the Freight Team that developed recommendations for AASHTO’s Board for the next surface transportation authorization.

- **Coordinated Size and Weight Enforcement**— As a follow-up to the European Size and Weight Scan a number of activities have been carried out to strengthen the capacity of state DOTs to carry out coordinated size and weight enforcement programs.

- **Assessing Proposals for Changes in Vehicle Size and Weight Limits**— SCOHT members and staff have met with industry representatives, with federal government officials, and with other SCOH Subcommittees to discuss possible proposals for changes in size and weight law in the next authorization and how to assess them.

- **The Freight Bottom Line Report**—The consulting team led by Cambridge Systematics has completed the work on the AASHTO Freight Transportation Bottom Line report, including the Highway Freight Movement Bottom Line report.

- **Guide for Vehicle Weights and Dimensions**—The updated guide will be printed and distributed before the end of 2009.

**SCOHT Annual Meeting: Savannah, Georgia**

The Subcommittee on Highway Transport, AASHTO’s trucking committee, met in Savannah, Georgia, June 17-18, 2008. The meeting had strong participation from both the member states and the trucking industry. Total registration exceeded 50. The commercial vehicle committee of the Southeast Association of State Highway and Transportation Officials met on the day preceding the SCOHT meeting.

The meeting was hosted and organized by a Georgia DOT team led by Kathleen Gibson, Tom Kearney and Mike Onder, of FHWA, reviewed the status of vehicle size and weight issues, and described current and near term projects that involve FHWA.
Briefings included presentations on proposals for raising the federal limit on truck weight, progress on standardizing escort vehicle training and certification, hurricane response, commercial vehicle issues in authorization, and CSA 2010, the Comprehensive Safety Analysis initiative of the Federal Motor Carrier Safety Alliance.

Presentations were also made on regional on-line permitting by Mississippi and Alabama and on automated permitting systems in Louisiana and Texas. Jodi Carson of the Texas Transportation Institute led a working session on coordinated size and weight enforcement and discussed the possibility of workshops in several states. Dick Knoll described the work of the National Association of Manufactures working group, Higher, Wider and Heavier.

A working group was established to refine the Subcommittee’s protocol for coordinating oversize/overweight disaster response deliveries.

The Subcommittee will follow up with the appropriate industry representatives on issues relating to the following:

- Fire trucks, tow trucks
- Wind turbines
- Boat Carriers
- Utilities
- National Association of Manufacturers “Higher, Wider, Heavier” proposal

Authorization Policy

SCOHT members participated in the Freight Team that developed freight transportation recommendations for AASHTO’s Board for the next surface transportation authorization. The recommendations include: the creation of a state freight program to assure that all states have access and connectivity to the national freight system and a national freight corridors investment fund, half of which would be apportioned to the states, half of which would administered by the U.S. DOT, for investment in projects that improve the efficiency of freight movement on the national corridors. The national investment fund would be capitalized from new sources of revenue. The work of the freight team was coordinated with that of the highway team. The commitment made by the AASHTO Board last year, that “States, in collaboration with the freight transportation industry and the federal government, should investigate the feasibility of regional adjustments in truck size and weight in particular corridors that demonstrate important economic benefits and meet safety, pavement/bridge impact and financing criteria,” was reaffirmed.

Coordinated Size and Weight Enforcement

Based on the findings and conclusions of the European Scan on Commercial Vehicle Size and Weight Enforcement, consultants from the Texas Transportation Institute have prepared information briefs on:

- Commercial Motor Vehicle Size and Weight Enforcement
- Weigh-in-motion System Calibration
- Oversize/Overweight Vehicle Permitting, Routing, and Monitoring
- Bridge Infrastructure Preservation
- Agency-wide Benefits of Commercial Motor Vehicle Size and Weight Management

The project, funded through NCHRP 20-07, which was advocated by SCOHT Chair Jim Lynch, will provide to DOT CEOs and senior staff information and analysis demonstrating the importance of size and weight enforcement relative to general transportation objectives, such as safety and infrastructure preservation. The information briefs have been distributed to all AASHTO members. Carson made presentations at the SCOH 2008
Assessing Proposals for Changes in Vehicle Size and Weight Limits

SCOHT members have met with industry representatives and with federal government officials to discuss possible proposals for changes in size and weight law in the next authorization and how to assess them. The discussions have focused on the proposal of the American Trucking Association (ATA) to enable states to exercise the option of raising the federal freeze to 97,000 pounds on six axles. Subcommittee Chair Lynch met with ATA leadership, the Subcommittee received a briefing from the ATA at its Washington and Annual meetings, and AASHTO staff have exchanged information with ATA staff. In addition, SCOHT organized a conference call for both SCOHT members and representatives of AASHTO infrastructure committees with infrastructure staff and S&W staff from FHWA. Additional meetings will be organized to develop a common understanding of the infrastructure impact implications of proposed changes.

The AASHTO Bottom Line Report—Highway Freight Movement

The Highway Freight Movement portion of the Bottom-Line Report will be issued early next year. It will summarize the issues and opportunities facing the nation’s highway freight transportation system. It will provide a snapshot of the highway/truck freight system, covering freight corridors; services; structure and ownership of the trucking industry; freight flow patterns and volumes of key commodities, and intermodal coordination with rail and water freight systems.

The general objectives of the AASHTO Freight Transportation Bottom Line Report are:

1. To create awareness and agreement among opinion leaders and decision makers that it is imperative that the nation invest in a freight transportation system that will assure continued competitiveness for the U.S. in the global economy and sustained economic prosperity;

2. To establish a framework for the national dialogue on the future of the national transportation system and the roles and responsibilities for transportation financing and management among federal and state governments and the private sector;

3. To develop a foundation of data and analysis that can be used to identify strategic investments in the freight transportation system.

Four reports will be prepared and issued in a manner that engages interest by building the argument for investment in freight transportation step-by-step and asks that others contribute to the development of the case.

Each report will be well-grounded in the best available information and analysis but will be structured for clear communication to a policy-relevant audience (20-30 pages of text, 2 dozen graphics, Power Point, brochure). Each report will have a well-publicized release/event and a structured process for securing reactions and suggestions for improvement.

Guide for Vehicle Weights and Dimensions

SCOHT members, led by Ric Athey, Arizona DOT, have updated the Subcommittee’s Guide for Vehicle Weight and Dimensions. The updated guide will be printed and distributed late in 2009. The primary purposes of this Guide are to:

- Provide a baseline of common terminology;
- Promote common permitting practices for overdimension/overweight operation;
- Promote improved transportation safety
- Promote efficiency and productivity for government and industry
- Provide necessary protection of the public infrastructure investment
- Promote uniformity in regulation and process
- Formalize operational procedures with the Dept. of Defense
The Guide is focused on providing information and guidance for States as they manage their transportation systems and for commercial carriers and others as they utilize highway transport.

**List of future meetings:**

- The Executive Board of SCOHT will meet in Washington in February of 2010. The site for the 2010 Annual Meeting has not yet been set.
AASHTO HIGHWAY SUBCOMMITTEE ON MAINTENANCE

 Officers
 Chair  Carlos Braceras, UT
 Vice Chair  Lacy Love, NC
 Secretary  Celso Gatchalian, FHWA (acting)
 Liaison  Ken Kobetsky, AASHTO

Summer Meeting

The 2009 Summer Meeting of the Highway Subcommittee on Maintenance (SCOM) was held in Annapolis, Maryland on July 19-23. The meeting was attended by a total 152 registrants including 68 delegates representing 19 states, AASHTO and FHWA, and 84 participants representing the industry associations, vendors, academia and representatives from Canada and South Korea. This year’s meeting was the 12th joint AASHTO-TRB Maintenance Management Conference.

The highlight of this year’s conference was the Strategic Planning Discussions with the vision of moving towards reorganizing the Subcommittee’s mission, vision, and leaderships. The strategic planning meeting was focused more on aligning the Subcommittees functions with the current SCOH Strategic Plans.

The following resolutions were developed during the meeting but due to lack of quorum during the election process, these resolutions are being forwarded to the Subcommittee members for balloting:

- Resolution 09-03 Continuing Concerns Regarding Increasing Truck Weights and Size Limits
- Resolution 09-04 To Establish Public Information Efforts to Publicize the Needs of Protecting and Preserving Highway Investments
- Resolution 09-05 To Establish Dedicated Funding to Preserve Highway Investments
- Resolution 09-06 Voluntary SICOP Assessment to Develop a Computer Based Training Program
- Resolution 08-07 Support the Pooled Fund for Maintenance Decision Support System
- Resolution 09-08 Develop Guidelines for Use of HBP Funds for Bridge Preventive Maintenance

The PowerPoint presentations given at the General Session and Technical Sessions are posted on the Maintenance meeting webpage:  http://highways.transportation.org/?siteid=76&pageid=1704.

Completed Tasks or Activities:

Bridge Task Force

- Bridge Deck Waterproofing Workshop at TRB: The Bridge Task Force (BTF) co-sponsored the session with TRB AHD-30. Speakers in this workshop addressed the effectiveness of existing and promising materials, methods, and strategies to improve the performance of highway bridge decks. The workshop included presentations on practices to achieve longer design life for new and replacement projects along with approaches to extend the service life of existing bridge decks through the application of preventive maintenance treatments such as thin-polymer overlays, penetrating sealers, and waterproofing membranes.

- Bridge Preservation and Maintenance Roadmap. The Strategic Plan developed by the BTF was adopted by SCOBS. BTF members developed the overarching document and listed a number of necessary activities necessary for establishing a foundation and network tools for bridge preservation and maintenance practitioners. The BTF will continue to work and follow the roadmap.

- Maintenance of Steel Coatings Survey. The survey provides information on how member states are maintaining the coating systems on their structures. The responses are posted at www.tsp2.org/phpBB2/viewtopic.php?t=78.
• Updates contact information for bridge maintenance engineers from all 50 states. Names, phone numbers, and e-mail addresses are listed.


• Coordination with TRB and T-9 committees. Members actively participated in TRB AHD-30 Structures Maintenance Committee and worked with T-9 in developing research needs, reviewing technical papers, and coordinating efforts in bridge preservation. Chairs of both groups met in January 2009 and held several phone conferences.

Pavements Task Force

• Developed a Pavement Preservation chapter that can be included in the new AASHTO Mechanistic – Empirical Pavement Design Guide (MEPDG).

• Supported the publication of Supplement to the AASHTO Transportation Glossary ("Pavement Preservation Glossary for Field Practitioners").

• Continuously supporting TSP2, NCPP, TRB, NHI and other partner efforts and activities.

Snow and Ice Task Force

• The Winter Maintenance Technical Services Program Committee (WMTSP) has updated our 4 year work plan with a focus on the new SCOM goals and SCOH initiatives.

• The AASHTO (WMTSP) Leader has coordinated and scheduled a Winter Maintenance Peer Exchange to be held in Madison, Wisconsin August 25th and 26th. This exchange will identify new challenges, define needed research, and share best practices.

• Submitted a resolution to develop a computer based training program on Performance Management. Training on performance management is desperately needed around the country.

• Submitted a resolution to have a Maintenance Decision Support System Presentation given on behalf of the SCOM, to the Standing Committee on Highways to point out the economic, safety and mobility benefits State DOTs get from using MDSS technology.

• Submitted a request to perform a 20-7 research synthesis on the Economic Benefits of Winter Maintenance & Operations. There has been a lot of research on the subject, we’re hoping to pull all that info together and have a communication package crafted so that State DOTs can present it to various audiences to maintain accountability and funding required for Winter Maintenance.

• Submitted a request to do a full research project titled “Long-Term Strategic Research for Winter Maintenance & Operations”.

• The Snow & Ice Task Force Chairman was part of a two-week Winter Maintenance Domestic Scan, and has been asked by several States to plans to conduct workshops, webinars, and presentations to share the best practices. Mobility, Workforce Management, Environment are all topics that will be shared. This will start next month and be ongoing.

• The Snow & Ice Task Force Chairman has been leading efforts to start a I-80 Winter Maintenance Corridor Coalition with the States of California, Utah, Nevada, and Wyoming. The intent of the project is to improve
traveler and freight safety and mobility along the rural interstate corridors in these four states. Sharing best practices, improving communication and data sharing, and leveraging funding for research & new technologies and training are the identified goals. An abstract and paper have been submitted to the International Road Congress and shared with Traffic Operations and Maintenance Engineers in each of the states. Hope to hold a stakeholder meeting before the end of the year.

- The Snow & Ice Task Force Chairman has been working with Paul Pisano of the FHWA with integrating Maintenance Management Systems and Maintenance Decision Support Systems. Eliminating the need for snow plow drivers to manually input work activity information into the MMS will save state dots a lot of money, and improve the accuracy and effectiveness of winter operations and maintenance. A paper was presented at the AASHTO SCOM Meeting in Annapolis, and continued efforts will be maintained over the next several months to work with vendors and state DOTs to help convey the economic, environmental, and mobility efficiencies gained by integrating these two system.

Traffic Services and Safety Task Force

- Our primary focus was on "Improving Highway Safety by Reducing Risk to Travelers and Workers" (SCOM goal #2)
  - We talked about the importance of keeping safety a priority in each state’s maintenance program. We discussed the "Rough Roads Ahead" report and how lean budgets could impact safety.
  - In the meetings we received information on the following:
    - Complying with the New Sign Reflectivity Requirements
    - Paint Program
      - Wet Night
      - Paint Removal
      - Testing for Reflectivity
    - Closing of Rest Areas
    - Safety Clothing

- On-going concern that will be followed up on
  - Improving the communication process of traffic accident data being shared to the lowest level. This will allow safety concerns to influence the day to day programming of work by the Station Manager

- Ideas and Suggestions on new SCOM Organization
  - We will need to be sure we do not lose focus on any of our safety features or activities
  - There needs to be a second level of leadership under the TWG
    - We recommend having a member or champion for each of the safety activities. These champions should be encouraged to meet and coordinate with other AASHTO counterparts to not only represent Maintenance but to bring back information important to the maintenance team.

Research Focus Group

- Continues to actively support this SCOH initiative in the area of research.

- Identify, on a yearly basis, key problem areas or gaps in data/knowledge, then develop, prioritize and submit for consideration research proposals that will assist in filling those gaps.

- Supported each Focus Group and Task Force throughout the year by sharing new developments in technology and/or state of practice with interested members.

Contract Maintenance Focus Group

- NCHRP Synthesis 389, Performance Based Contracting for Maintenance, was published in June 2009.
- NHI Training Course 134079 Performance Based Contracting for Maintenance was rolled out with a pilot training class with Tennessee DOT employees in Nashville on May 4 - 5, 2009. NHI staffs are preparing to offer course in the near future for other DOT's.

• NCHRP Panel 14 - 18 Determining Highway Maintenance Costs is underway with Cambridge Systematics, Inc. and is scheduled to be completed by the July 2010 SCOM meeting in Savannah, Georgia.

Equipment Focus Group

• The 2009 AASHTO Equipment Reference Book was updated and placed on the SCoM Webpage (UDOT completed this again for us this year.)

• A survey was developed for reducing fuel consumption and carbon footprint in DOT operations
  o AASHTO distributed the survey to the DOT State Equipment Managers and provided the survey results.
  o The survey results were provided to the Snow & Ice and the Roadsides & Environment task forces and the Research Focus Group

• As a result of a resolution passed by the SCoM last year, a ballot was presented to SCOH and the BOD to publish an AASHTO guide for the selection and application of warning lights on roadway operations equipment
  o The guide document is the result of NCHRP Project 13-02 - Selection and Application of Warning Lights on Roadway Operations Equipment and was originally included in NCHRP Report 624 - Selection and Application of Warning Lights on Roadway Operations Equipment
  o More than 2/3rd majority of the SCOH membership voted to approve the ballot, so the guidelines will be printed as an official AASHTO Guide and national publication.
  o Until it published in its final form, the ballot copy of the guidelines (which are available on the on SCoM website) may be used as the approved AASHTO guide

• An Equipment Management Technical Services Program (EMTSP) was established as a result of a proposal and resolution presented to the SCoM last year and ballots that were approved by SCOH and BOD
  o Sufficient state contributions have now been collected to get the program started
  o AASHTO has hired National Center for Pavement Preservation (NCPP) staff to facilitate starting the program and to assist with program management
  o A draft scope, task document, and budget for start-up of the program have been developed and planned activities have been prioritized –
    □ Establish an EMTSP website, bulletin board system, and listserv
    □ Start an on-line reference library
    □ Collaborate with regional EMTSP representatives to organize and facilitate regional Equipment Management Partnership meetings
    □ Update the annual AASHTO Equipment Reference Book and place it on the EMTSP website
  o The Equipment Focus Group solicited for and received volunteers to be members of the oversight committee for the TSP. The volunteers include one member from each AASHTO region, two at-large members, and a chair.
  o AASHTO will be sending a letter to each of the volunteer’s State DOT CEO and ask them if the suggested person may become a member of the subcommittee. Once the CEO approves the nomination, AASHTO will make the appointment official and present the names to the SCOM Chair to appoint these people to the TSP oversight committee.

• Participated in NCHRP Project 13-03A (originally 13-03), Decision Making for Outsourcing and Privatization of Vehicle and Equipment Fleet Maintenance
  o The interim report submitted by the original research agency on Phase I of the project was unacceptable
  o A proposal for the project was submitted by another research agency and a contract has now been awarded
  o NCHRP has received a working plan for the project from the new research agency
  o The research project panel is currently reviewing the working plan for compliance with the approved research plan

Performance Measures Focus Group
The Maintenance Quality Peer Exchange was held on September 22-23, 2008 and the priorities from that workshop were discussed. The top 5 priorities developed at the 2nd National MQA Peer Exchange were:

- Common definitions of terms
- Common forms of measurements (not common standards)
- Webinars and List Serves on Performance Measures
- A Guide to tell the story of Highway Maintenance applicable to state legislators and the general public
- A public outreach to determine and focus on specific areas that matter to the traveling public

With the proposed reorganization, the Focus Group identified items that needed to be pursued in some form by the new Technical Working Groups. These items included:

- Continued maintenance and support of the MQA Website
- Support and organization of a 3rd National MQA Peer Exchange
- NCHRP Projects Underway
  - LOS on Interstate (14-20)
  - Customer Service (20-07)

Jim March, FHWA, provided an excellent presentation on Considerations in Implementing a Performance Based Federal-aid Program which will be likely be a requirement of the new highway bill. There was much discussion centered around national performance measures.

A research project statement was jointly proposed by the Performance Measures Focus Group and the Pavement Task Force entitled "Convincing Stakeholders; Developing a Guide for Communicating Maintenance and Preservation needs. This research seeks to improve efforts to communicate the effects of reduced funding, increased traffic and increased public demand more effectively to elected officials, decision makers, other stakeholders and the public.

Workforce Development Focus Group

Currently working with the Transportation Curriculum Coordination Council (TCCC) to identify existing training courses that will address the competencies identified in their Maintenance Training Matrix and to identify gaps in existing training so that new courses can be developed.

Continued support of TCCC, and collaboration to identify existing courses that address maintenance training needs that can be converted into an e-learning format for use by maintenance personnel.

Supported the efforts of the TCCC to populate the new Transportation Training Data Base. The database will serve as a resource to training program managers, and will be correlated to the competencies within the TCCC curriculum matrices.

The Focus Group presented a research problem statement in 2007 entitled “Challenges and Success in Attracting and Retaining a Skilled Transportation Workforce” that was selected by NCHRP (Project 20-81, FY 2009). The Focus Group chair is serving on the project panel. The project was awarded to TCF International in association with Venner Consulting, Inc. The project is scheduled for a September 2010 completion date.

The Subcommittee continues to support FHWA/NHI development of the Maintenance Leadership Academy. Work on the curriculum has been completed. The technical walkthroughs of the various program modules were held during the fall of 2008. The course pilot is tentatively scheduled for late this year or early 2010.

The Subcommittee, with the support of industry, is working to develop a certification program for pavement preservation contractors aimed at providing the states with a pool of qualified contractors from which to choose from for the application of preventive maintenance treatments.

Future Events

The 2010 Subcommittee on Maintenance Meeting is scheduled July 18-22, 2010 in Savannah, Georgia


HIGHWAYS SUBCOMMITTEE ON MATERIALS

Officers:
Chair: Grant Levi, ND
Vice Chair: Mark Felag, RI
Secretary: Jack Springer, FHWA
AASHTO Liaison: Keith Platte, Ken Kobetsky

Summary of Activities and Accomplishments from October 2008 to October 2009:

The SOM held its 95th Annual Meeting in Anchorage, AK on August 2-7, 2008. The 21 Technical Sections; the Executive and AASHTO Products Evaluation List (APEL) Councils; and the AMRL Administrative Task Group (ATG) all met during the period. In addition to the normal activities conducted at the meeting, this year a peer exchange was held that looked at how the operations of the SOM can be carried out in the future. This activity was funded through the 20-7 program and was managed by NCHRP. Gary Hoffman, retired PennDOT and ex-chair of the SOM, was brought in by NCHRP to facilitate and compile all of the information in a report. The results from the peer exchange will be presented to SCOH by Grant Levi, ND DOT and chair of the SOM. An agenda is included as Attachment A.

Two major accomplishments by the SOM this year were the harmonization of cement standards by AASHTO and ASTM and introduction of a standard on ASR that will be balloted this fall. A joint AASHTO-ASTM task force has been working for a number of years to resolve differences between AASHTO and ASTM cement standards. The task force finished its work this year. An FHWA Technical Working Group on ASR, which included members of the SOM, has been working with consultants to develop a standard on ASR. Work on the standard was completed this year and the standard will be on the SOM ballot this fall.

Representatives from 37 States plus NCHRP participated in the meeting. As in the past, the FHWA headquarters and field office Materials Engineers met concurrently with the SOM and participated in the Roundtable and Technical Section meetings. Steve Krebs from Wisconsin DOT was nominated and approved to be the Region III Vice-Chairman.

The 29th Edition of AASHTO Materials, which includes all of the SOM's standard tests and specifications, was published in a five-volume paper version in July and as a single-user CD-ROM in September. It includes 421 specifications, practices, and test methods, plus 41 provisional standards. There 8 new standards adopted this year. The 29th Edition is also available on-line: with an annual subscription from a commercial vendor.

The AMRL's laboratory inspection and proficiency sample programs continue to grow, as does the AASHTO Accreditation Program (AAP). The 27th assessment tour includes over 60 new labs.

The SOM continues to look at ways of taking advantage of developments in electronic information technology. Updates have been made to the e-ballot website and most technical sections now use the e-ballot system for tech section ballots. A new version of the electronic ballot system and the SOM website will go on line in late 2009.

The Executive Council has also held discussions concerning the relationship between AASHTO and ASTM. This past year an MOA was signed between AASHTO and ASTM. The MOA describes how standards will be managed between the two agencies and establishes ownership of standards. Prior to the MOA, there were “A”, “B” and “C” standards. “A” standards were owned by AASHTO, “B” standards were co-owned by the two organizations and the “C” standards were owned by ASTM. Many of these “C” standards have multiple exceptions. Last spring a 20-7 project was approved by SCOH that provides funding for the review of the “C” standards and where multiple exceptions exist, the standards will be rewritten and adopted as AASHTO standards. NCHRP has held discussion with possible contractors and work is scheduled to begin in late fall or early winter.

The membership of the Joint Technical Committee on Pavements (JTCP) was also discussed during the meeting. There is still concern with the JTCP being under the subcommittee on Design while over 50 percent of the members of the SOM have responsibility for pavement design.

There were seven resolutions passed at this year’s meeting. The resolutions were as follows:
Support for the Recycle Center at University of New Hampshire
Formation of a Joint Task Force on Pipe
Formation of an ETG on Pavement Performance Data Collection
Support for the Use of Fly Ash in Highway Construction
Support for a national industry certification programs for personnel, production and quality control related to fabricated structural bridge components and processes
Continuing Concern over the possibility of increasing truck weights without a change in truck configuration
Recognizing Jack Telford, retired Oklahoma DOT, whom recently passed away.

Presentations of interest at the Plenary Sessions included Authorization, ARRA, ASR, tracking material placement w/ RFIDs, impact of materials & construction variability on pavement performance and porous friction courses with rubber. There were a number of presentations on items being implemented by FHWA and presentations be the emulsion and the recycling task forces. Another presentation was an update on the coefficient of thermal expansion (CTE). The provisional standard for CTE was adopted as a full standard this past year but it was determined that there was a problem with calibration procedure in the test method. This problem has resulted in incorrect CTE values being used in the calibration of the new MEPDG concrete pavement models. Once the CTE values are corrected the models will need to be recalibrated. A 20-7 project is being proposed to fund the correction of the models since this is out of the scope of the DARWIN taskforce developing the MEPDG.

Names of Other Committees Involved or with an Interest in Each Activity: Joint Technical Committee on Pavements, Subcommittee on Design, Subcommittee on Construction; Subcommittee on Maintenance

Dates and Locations of Future Committee Meetings: The 96th annual meeting of the SOM will be held August 8 - 13, 2010, in Madison, WI. The proposed location of the 97th meeting of the SOM is Vermont.
HIGHWAYS SUBCOMMITTEE ON RIGHT-OF-WAY AND UTILITIES

Officers:

- Chair  John P. Campbell, P.E., SR/WA, Texas
- Vice-Chair, Right of Way  Matt DeLong, Michigan
- Vice-Chair, Utility  Chuck Schmidt, New Hampshire
- Secretary  Gerald Solomon, FHWA HQ, Washington, D.C.
- FHWA Utility Liaison  Jeffrey Zaharewicz, FHWA HQ, Washington, D.C.
- AASHTO Liaison  Jim McDonnell, P.E., AASHTO

Membership Changes:
Subcommittee membership activity reflected the transitional nature of the past year and an optimistic future outlook. The steady pace of retirement celebrations has leveled off somewhat and the strategic advancement of some key r/w way and utility members into project development positions foretells a more promising future in which right of way considerations are integrated into preliminary planning and project scoping. So as we fondly bid farewell to a few, we are encouraged to see several new faces accompanied by a refreshing level of enthusiasm and desire for active participation.

April 2009 - Bimla Rhinehart, California resigned her position on the subcommittee executive board in order to accept appointment as the Executive Director of the California Transportation Commission. Bimla served on the subcommittee executive board as the Region 4, Utilities Representative since her appointment in January 2007. Bimla was a valuable member of FHWA/NCHRP Project Panel 20-36 International Scan, “Integrating and Streamlining R/W and Utility Processes with Planning, Environment and Design” and is a co-chairman of the scan implementation team. Bimla has been an active member of the subcommittee since 2005 in her previous position as the Chief, Division of R/W & Land Surveys for the California DOT.

January 09, 2009 - Gary Fawver, Pennsylvania resigned his position on the subcommittee executive board in order to accept the promotion and permanent assignment as Division Chief for the Environmental Quality Assurance Division of the Pennsylvania DOT. Gary served on the subcommittee as a Region 1 Right of Way Representative from January 2006 until his resignation, and was a generous contributor of his time and expertise while facilitating the development of several research initiatives. Most recently Gary served as a member of the FHWA/NCHRP Project Panel 20-36 International Scan, “Integrating and Streamlining R/W and Utility Processes with Planning, Environment and Design” and contributed to the development of the Scan Implementation plan. Gary was an active member of the subcommittee since 2000 in service to the Pennsylvania DOT as Chief, Utility and Right of Way Section.

January 06, 2009 - Jim Viau, Ohio resigned his position as the subcommittee Vice Chairman for Right of Way. He provided valuable leadership and was an active participant on the executive board from June 01, 2006 – May 31, 2008. Jim has agreed to continue his participation and generous contributions of experience and expertise to the subcommittee by reassuming his previous role on the executive board as a Region 3 Right of Way Representative. Jim has been an active member of the subcommittee since November 2003. He is currently the Right of Way and Utilities Director for the Ohio DOT.

December 31, 2008 – Richard Hunter, Illinois retired from the Illinois Department of Transportation. Dick served on the executive board as a Region 3 Right of Way Representative and was a subcommittee member since August 1, 2002. Dick was the Chief of Land Acquisition for the Illinois Department of Transportation at the time of his retirement.

December 1, 2008 - Gerry Gallinger, Washington retired from the Washington State Department of Transportation after almost 26 years of service. Gerry served on the executive board as a Region 4 Right of Way Representative and was an active member of the subcommittee for several years. Gerry served as the Director of Real Estate Services for the Washington DOT for the past 8 years.

New Members
We are encouraged by the continued enthusiasm and active participation of the subcommittee membership. The subcommittee continues to expand services to our membership in large measure thanks to the leadership and collaborative efforts initiated by our federal partners in the Office of Real Estate Services at the FHWA. The R/W
and Utilities Subcommittee welcomes the appointments of the following new additions to the subcommittee membership.

**April 19, 2009 - Lyle McMillan, Utah** was appointed to the subcommittee executive board as a Region 4 Right of Way Representative. Lyle has been a contributing member of the subcommittee since August 11, 1999. He is currently the Director of Right of Way for the Utah DOT.

**April 19, 2009 - Kelly Lucas, Missouri** was appointed to the subcommittee executive board as a Region 3 Right of Way Representative. Kelly has been an active member of the subcommittee since September 2007. She is currently the Right of Way Director for the Missouri DOT.

**January 06, 2009 - Cheryl Cathey, Illinois** was appointed to the subcommittee executive board as the Region 3 Utility Representative. Cheryl has been a contributing member of the subcommittee since 2000. She is currently the Chief of Preliminary Engineering for the Illinois DOT.

**2009 Executive Board Business and Planning Session:**
The Executive Board of the R/W and Utilities Subcommittee met in Oklahoma City, Oklahoma on January 06 – 08, 2009 to conduct mid-year business, identify emerging issues, and collaborate with FHWA leadership on anticipated federal program changes. The planning session in preparation for the 2009 annual conference and meeting of the full subcommittee membership was conducted at the Oklahoma City Sheraton Hotel which then served as the host facility for the 2009 annual meeting of the full subcommittee membership.

**2009 Spring Membership Meeting and Conference:**
The Highway Subcommittee on Right of Way and Utilities met in Oklahoma City, Oklahoma on April 19 - 23, 2009. The theme for the 2009 conference was “Economic Stimulus: How to Deliver Sooner.” While travel restrictions and economic conditions resulted in lighter than usual attendance, the subcommittee sponsored or supplemented the cost of travel expenses to assure that key members and a quorum of the executive board were present to conduct business and present the conference. Technical council sessions were presented via teleconference in order to further extend the reach of virtual participation to the membership.

The subcommittee was honored by the attendance and participation of Mr. Alan Hartley with the Department of Transport, Energy and Infrastructure (DTEI), from Adelaide, South Australia. Mr. Hartley and DTEI hosted a stop on the International Scan tour visit to Australia, and has since pursued the development of a more lasting relationship with the subcommittee in order to share the best practices for “Integrating and Streamlining R/W and Utility Processes with Planning, Environment and Design” in global collaboration with professional right of way peers across international boundaries.

**2009 FHWA Excellence in Utility Accommodation and Relocation Awards**
The FHWA awards for "Excellence in Utility Accommodation and Relocation" were presented by Jeff Zaharewicz and Dwight Horne, FHWA Office of Program Administration, at the Awards Luncheon on April 20, 2009 at the AASHTO/FHWA Right of Way and Utility Conference in Oklahoma City, Oklahoma. The “Excellence in Utility Accommodation and Relocation” awards program is conducted biennially by the FHWA to honor outstanding achievement in the utility arena. The goal of this program is to showcase exemplary projects, programs, initiatives and practices that successfully integrate the essential consideration of utility accommodation in the planning, design, construction and maintenance of transportation facilities. The 2009 “Excellence” awards recognize outstanding achievements in the categories of: Project Development, Construction Management, Innovation, and Leadership. For additional information about this year’s award recipients and their winning efforts, please visit the FHWA web site at: [http://www.fhwa.dot.gov/utilities/2009awards.cfm](http://www.fhwa.dot.gov/utilities/2009awards.cfm)

Congratulations to the following 2009 recipients of the FHWA “Excellence in Utility Accommodation and Relocation” awards:

- **Project Development – Maryland State Highway Administration**
  In partnership with KCI Technologies, Inc. and Johnson Mirmiran and Thompson for the Maryland Route 97/Randolph Road Intersection improvement project, Montgomery County, Maryland.
- **Project Development, Honorable Mention – New Jersey Department of Transportation**
  In partnership with Taylor Wiseman and Taylor for the Route 17 / Essex Street Interchange Reconstruction, Bergen County, New Jersey.

- **Project Development, Honorable Mention - Louisiana Department of Transportation and Development**
  For the Ambassador Caffery Parkway Extension Project, Lafayette Parish, Louisiana.

- **Construction Management – Minnesota Department of Transportation**
  In partnership with Flatiron Construction Corporation and TBE Group for the unique collaborative approach of involving utility stakeholders in the emergency reconstruction effort in response to the collapse of the IH 35W bridge across the Mississippi river in Minneapolis, MN.

- **Innovation - Georgia Department of Transportation**
  For the development of the “Utility Redline” software application that facilitates electronic transmittal, processing and coordination of utility project impacts to minimize disruptions and streamline project delivery.

- **Innovation, Honorable Mention – Florida Department of Transportation**
  For the Florida Department of Transportation’s Utility Coordination Web Site developed to span the gap of information exchange between project development activity and construction operations.

- **Innovation, Honorable Mention – Texas Department of Transportation**
  In partnership with Parsons Brinckerhoff for the IH 10, “Katy Freeway” Reconstruction Program, Houston, Texas. TxDOT’s use of a dedicated utility coordination and inspection consultant in combination with the “corridor” approach to combined construction and utility operations contributed to the timely delivery of this large-scale transportation improvement project.

- **Leadership - James H. Anspach, PG, Owner - J.H. Anspach Consulting**
  Nicholas M. Zembillas, Senior Vice President/Principal - Cardno TBE

  Congratulations to our esteemed private sector partners and Co-recipients of the "Leadership" award for recognized leadership in the development of the professional engineering practice of "Subsurface Utility Engineering" (SUE) and promotion of utility coordination techniques in transportation project development and delivery.

- **Leadership, Honorable Mention - Ohio Department of Transportation**
  Congratulations to the Ohio DOT for the "Utility Plan Reading" training curriculum and workshop developed in house as a practical means by which to improve understanding of utility conflicts with transportation projects and enhance the efficiency and cost effectiveness of utility relocations required for highway construction.

- **Leadership, Honorable Mention – Teresa Loop, Municipal Liaison Manager, Puget Sound Energy**
  Congratulations to Ms. Loop and Puget Sound Energy for the independent effort and exceptional team building skills that were key to the successful effort to collaborate and coordinate the utility relocation plan in preparation for the State Route 20 project construction.

The subcommittee will host presentation of the 2010 “Excellence in Right of Way Awards” at the AASHTO/FHWA Right of Way and Utilities Subcommittee Conference in San Diego, California.

**Summary of Subcommittee Activities and Publications for 2009:**

**2009 Wisconsin DOT Peer Exchange, Madison WI**
09/15-17/2009 R/W & Utility subcommittee member, Rebecca Krugman, hosted a peer exchange to explore current experiences of other states associated with the reorganization of project delivery functions to streamline and facilitate more effective delivery performance. Round table discussion items included resource planning and structure, effective use of consultants, and procedures for surplus land disposal. The following subcommittee members represented their state perspective in the two day dialog at the University of Wisconsin campus in Madison.
NCHRP Project Panel 20-36, - International Programs

1) Integrating R/W and Utility Processes with Project Development

The field work for the International Scan entitled “Integrating and Streamlining R/W and Utility Processes with Planning, Environment and Design” was completed in September 2008. The scan team reassembled in December 2008 in Washington, DC to finalize the preliminary findings, present the report to the FHWA/NCHRP international programs staff, and begin development of the implementation plan. From a comprehensive list of 20 implementation ideas, the scan team identified and selected the following key ideas for priority implementation:

- Develop and pilot the use of the “Alliance Contract” approach, to integrate the advance planning of right of way acquisition and utility accommodation in the scoping phase of transportation project planning. The “Alliance Contract” concept seeks to facilitate collaboration of the interested and affected parties in the scoping of the project objectives. Anticipated benefits include enhanced and more cooperative relationships with property owners to facilitate equitable and timely property acquisitions, expanded use of communications and visualization techniques to more effectively engage property owners in the project planning dialog and better communicate anticipated project impacts.
- Develop a standard framework for the requirements and qualifications of proficiency for right of way and utility professionals in core disciplines.
- Promote the use of incentive payments in utility accommodations to facilitate more effective partnerships with utility providers in transportation project development.
- Pursue strategies to facilitate corridor preservation and secure advance property interests for future use.
- Promote the use of a tiered, multiple-level Memorandum of Understanding (MOU) structure among transportation and utility partners.
- Develop GIS-based right of way project and asset management systems.
- Promote the expanded use of best practices in utility coordination during the construction phase to streamline project delivery.

A detailed “Scan Implementation Plan” supporting each of these implementation goals was finalized in April. The Final Report was published by the FHWA Office of International Programs in June 2009 and both documents are now available on line at [http://international.fhwa.dot.gov/pubs/pl09011/](http://international.fhwa.dot.gov/pubs/pl09011/).

The Implementation Plan identifies a number of activities including pilot programs and further research to implement, analyze, and achieve the over arching and cross cutting objectives of the international scan. The first deliverable proposed in the Implementation Plan to be completed was a synthesis report that details the multiple-level MOU structure for utility-transportation agency coordination, and provides a template for use by United States transportation agencies and utility organizations. This report was finalized in August 2009 and is currently pending transmission to interested stakeholders.

An important finding of the international scan and a key element for implementation is the expansion of outreach efforts and the enhancement of professional education and information resources. Since the December 2008 reassembly meeting, the Scan findings and implementation goals have been presented at the following forums and events:

- January 2009: Transportation Research Board Meeting (a panel session and a workshop with utility community; overview summary provided to TRB Utilities Subcommittee);
- January and June 2009: International Right of Way Association conferences;
- April 2009: AASHTO Right of Way and Utilities Subcommittee Conference;
- May 2009: American Road and Transportation Builders Association Conference (overview discussion);
• May and August 2009: Informal discussions with other international scan Expert Task Groups and working groups that have identified similar implementation goals; and
• July 2009: TRB Legal Workshop

Of particular note is the AASHTO presentation that included participation by Mr. Alan Hartley, of the Department for Transport, Energy, and Infrastructure, Adelaide, South Australia. Mr. Hartley transmitted background documents and materials regarding alliance contracting and early contractor involvement which is related to the top implementation goal identified by the scan team.

Another significant accomplishment resulting from the international scan is the formation of the right of way and utilities Expert Task Group (ETG) with the specific goal to facilitate continued implementation of scan recommendations in practical practice across the member agencies of the AASHTO R/W and Utility subcommittee. The International Scan ETG will:

• Provide necessary management and technical structure to follow through on the Scan Implementation Plan and eventually become a resource for continuous support of R/W and Utility project and program initiatives;
• Conduct continued outreach and facilitate communications to promote the R/W and Utility Scan findings and implementation ideas; and
• Establish contacts and a liaison with other similar efforts to support and advance common goals and initiatives (e.g. Alliance Contracting with the Construction Management and PPP Scan groups).

The core membership of the ETG has been identified as: Gerry Solomon, FHWA (Scan Co-Chair), John P. Campbell, Texas DOT (Scan Co-Chair); Ray Lorello, Ohio DOT; Ben Ward, PBS&J; and Jeffrey Zaharewicz, FHWA. Each of the other scan team members (Gary Fawver, Pennsylvania DOT; Dan Mathis, FHWA; Cesar Quiroga, Texas Transportation Institute; Bimla Rhinehart, California DOT; and Nick Zembillas, CardnoTBE, have also agreed to participate in the ETG on activities related to their professional expertise. The first meeting of the ETG is scheduled for November 2009 in Austin, TX.

2) Best Practices in Outdoor Advertising Control
The proposal for the International Scan on Outdoor Advertising Control was approved by the NCHRP 20-36 Panel in August 2009. The Desk Scan was produced by Jerry Wachtel, CPE, The Veridian Group, Inc., under contract with NCHRP. The desk scan will be revised and finalized by the report facilitator, Cesar Quiorga, Texas Transportation Institute (TTI). The international scan was approved for appointment of an international scan team and destinations will be decided at the organizational meeting to be held in Washington, DC in October 2009. The scan team is tentatively scheduled to depart in March 2010.

The international scan is co-chaired by:
• Mary Jane Daluge, FHWA Co-Chair,
• Matt DeLong, DOT Co-Chair, Michigan DOT

Scan Team members include:
• Cesar Quiroga Report facilitator, Texas Transportation Institute
• Hari Kalla, FHWA HQ, Washington, DC
• Susan Klekar, Nevada DOT
• Lyle McMillian, Utah DOT
• Barbara Wessinger, South Carolina DOT
• Laurie Hanig, Maryland DOT

Planning for the scan tour is underway. Phase I- the desk scan – is complete. Phase II - the international tour – is ongoing. The team members have been selected and will convene the first Organizational meeting to be held October 2009. The objectives of the October meeting will be to develop amplifying questions and to select the tour destinations. A technical report, tour presentation and implementation plan are the intended deliverables of the scan.

“Turbo Relocation” AASHTOWare Product Development
“Turbo Relocation” is a proposed AASHTOWare, expert system application being developed to provide an interactive application for use by professional relocation assistance service providers. Successful implementation
of the Turbo Relocation product will result in a practical tool for use by the relocation assistance practitioner to assure consistency in the calculations and professional advisory services offered by state DOT’s in compliance with the “Uniform Act.” The “Turbo Relocation” concept envisions the development of a software product similar in function to “Turbo Tax” with built in component “calculators” to assist in the calculation of relocation assistance benefits and payments.

The Task Force selected BEM to design the software. Two meetings have been held to work through the process flow chart and discuss screen layout. It is expected that beta testing of the system will begin after the first of the year with testing following in the spring. The Task Force and BEM are working towards a fall 2010 release.

Thirteen States have committed funds to support the development of the “Turbo Relocation”, AASHTOWare product. The participating states include Alaska, Arizona, Arkansas, Connecticut, Delaware, Florida, Idaho, Illinois, Maryland, Michigan, Mississippi, Nebraska, and South Carolina.

The following members of the “Turbo Relocation” task force have been selected by AASHTO for their right of way expertise:

- Sabra Mousavi, Arizona DOT (Chair)
- Arnold Feldman, FHWA Project Liaison
- Gina Anthony, Maryland SHA
- Walter Mabry, Mississippi DOT
- Carmen Reese, Idaho DOT
- James Braden, Arkansas DOT
- Annette McCrorey, South Carolina DOT
- Kelly Ramirez, Michigan DOT
- Robert Wright, Alaska DOT

Research Studies and Pilot Project Initiatives:

National Cooperative Highway Research Program (NCHRP), 20-07 Project Panel
NCHRP was created in 1962 as a means to accelerate research on acute problems that affect highway planning, design, construction, operation, and maintenance nationwide. The Right of Way and Utilities subcommittee recommends research topics for consideration by the 20-07 research panel twice each year. At the 2008 annual meeting of the Standing Committee on Highways (SCOH) the right of way and utilities subcommittee was appointed to the 20-07 project selection panel.

NCHRP 20-07, Task 247 – “Outdoor Advertising Sign Regulation Study” was completed effective 06/01/2009. The final report has been submitted and accepted. The objective of the research was to identify, compile and report on the standards, measures, and current enforcement practices in use throughout the states for the regulatory control of outdoor advertising signs. The parties to the research initiative were Ken Towcimak and John Garner - Florida DOT, Matt DeLong – Michigan DOT, Lyle McMillan – Utah DOT. Please visit the Transportation Research Board (TRB) site for additional information regarding the status of Task 247.

NCHRP 20-7, Task 248 – “Utility Encasement Policy for Highway Crossings”, was funded at $50,000 and approved effective 03/09/2009 with an anticipated completion date of 12/08/2009. The objective of this research is to review the current DOT encasement policies in practice nationwide, and determine the feasibility of a safe alternative to encased crossings at highway / utility crossings. The research will also include proposed criteria and specifications for an uncased crossing alternative if so indicated by the findings. The following team members have been selected to participate on the Task 248 research initiative:

- Chuck Schmidt, New Hampshire
- Ray Lorello, Ohio
- Robert Memory, North Carolina
- Robert Lee, Alabama

Please visit the Transportation Research Board (TRB) site for additional information regarding the status of Task 248.
NCHRP 20-7/Task 269 – “Feasibility of Using Incentives to Facilitate Utility Relocations”
The objectives of this research project are to (a) document experiences State DOTs have had using incentives for utility relocations; (b) investigate how incentives have been used to accelerate other critical construction-related activities; and (c) recommend incentives State DOTs may want to consider.

Please visit the Transportation Research Board (TRB) site for additional information regarding the status of Task 269

FHWA Surface Transportation Environment and Planning (STEP) Research Program
1. Integrating Visualization Technologies into the R/W Process The research is to determine the extent of the use of visualization technology, the type of software and hardware being utilized by the State Departments of Transportation (DOT) and to develop and share best management practices, tools, and techniques to further promote usage of visualization within the State DOTs.

2. R/W, Design-Build, and Acquisition Models - This research is to identify methods used for R/W acquisition and relocation assistance in design-build contracting and to evaluate the need for regulatory change and development of lessons learned and best practices. The research will look at alternative contracting methods and how right-of-way can be integrated. A workshop is currently scheduled for November 2009 in Austin, Texas.

3. Right-of-Way Competency Navigator and Training Curriculum Clearinghouse - This research has established a clearinghouse for R/W training resources. FHWA beta tested the product in August 2009, and anticipates product availability for implementation during FY 2010.

4. Relocation Assistance Retrospective Study - This research is to perform a retrospective survey of costs businesses incur as a result of being relocated and determine percentage of businesses that remain in operation following relocation. Quantitative and qualitative data analysis will be employed to assess consistency and the adequacy of “Uniform Act” benefit levels.

5. Identification and Development of Local Public Agency Stewardship Tools and Techniques - This research will feature a National Highway Institute (NHI), instructor led training course. The research initiative will also deliver the substance for an update of the FHWA LPA Guide. The NHI Training is anticipated to be complete and piloted early 2010 and will then be available through NHI. The Updated LPA Guide is anticipated to be available on the FHWA website by early 2010.

6. Commercial Electronic Variable Message Sign (CEVMS) and Driver Attention - This research is a study of the effect of commercial electronic variable message signs on driver attention, and potential risk to safety. The primary focus is the effect of CEVMS on driver behavior. The first phase was completed in January 2009. Testing and data analysis under Phase 2 is anticipated for completion in late 2009. The final report is anticipated to be available by mid 2010.

7. FHWA Peer Exchange on Use of Right of Way Incentive Payments - The results of the 2008 peer exchange are now available at: http://www.fhwa.dot.gov/realestate/incpeerexch.htm. Several State DOTs have made use of incentive payments and share their insights and lessons learned.

Integrated Project Delivery
The Subcommittee on Right of Way and Utilities continues to pursue opportunities to participate in combined forums with other AASHTO Committees and SCOH Subcommittees in order to meet the goal of improving multi-disciplinary coordination in development and delivery of transportation projects. The 2009 priority for improved integration of right of way and utility operations with project planning and development, creates a mutually beneficial opportunity for interaction with groups such as the Subcommittee on Design, the Standing Committee on Planning, and the Standing Committee on Environment. The subcommittee in collaboration with the subcommittee on design explored the possibility of a joint meeting of the combined subcommittee memberships at the 2010 R/W and Utility conference in San Diego. Economic conditions and travel restrictions required that the discussion be postponed for future consideration.

AASHTO Legislative Policy for Program and Project Development and Delivery
Representatives of the R/W and Utility Subcommittee participated in work group efforts to identify and compile recommendations for consideration of right of way and utility features to enhance the next federal transportation bill. Recommendations for more effective delivery of right of way included: encourage corridor preservation, provide for advanced acquisition, establish a corridor preservation fund, accommodate future expansion, and allow for concurrent construction and right of way acquisition. The Legislative Recommendations Summary included: Expanding opportunities for early right of way acquisition to protect future transportation corridors and to reduce cost and disruption to communities.

Program Delivery Improvement Tool (PDIT)
The Subcommittee on Right of Way and Utilities continues to participate on the Program Delivery Improvement Tool (PDIT) team developed in response, and as a component of the U.S. DOT priority for focus on Accessibility and Accountability. Turnover in subcommittee representatives on the PDIT team will require additional appointments to fill current vacancies; the remaining representative is Jim Viau, Ohio DOT.

The Right of Way and Utility subcommittee’s hope for PDIT is to develop a mechanism by which to correlate the effectiveness of improved, coordination between project planning and Right of Way and Utility functions with more timely and cost efficient project delivery.

Strategic Communications and Information Exchange
The Subcommittee continued to expand our resources for information exchange among the membership. The key communications and information exchange resources include:

- The Subcommittee website located at http://rightofway.transportation.org/, developed by the Florida DOT and maintained by the voluntary efforts of the Texas DOT.

The Subcommittee “Clearinghouse” is a resource to facilitate web-based, query, compilation and distribution of topic-specific, surveys and reports submitted by R/W and Utility members. The “Clearinghouse” function is managed by the voluntary efforts of the Michigan DOT. This year 9 surveys were completed and are published under the “Documents” tab of our website at http://rightofway.transportation.org/ topics of particular interest this year included:

- ARRA Efforts Related to Acquisition and Relocation
- Construction Permits Inspection Guide
- Spring Meeting Attendance
- Right of Way Parcels
- Right of Way Academy – 4 Surveys
- Fiber Optic in R/W

Technical Councils
The primary objective of the Technical Councils is to expand the strategic communications network among the membership to establish a forum for broader participation by employees at the operations level within member states. This year the technical councils were particularly useful in extending the outreach to an expanding virtual audience even as economic conditions conspired to keep much of the membership close to their homes. The conference agenda featured several technical council roundtable discussions with virtual participation via teleconference to the subcommittee. One new associate and international colleague defied the trend and traveled across the globe in order to attend the conference in Oklahoma City, Alan Hartley, DTEI, Adelaide, S.A. Each of the standing Technical Councils is chaired by a state R/W or Utility Director with participation open to all member state employees. The current standing Technical Councils have been established for the following nine subject areas:

- “R/W Appraisal and Appraisal Review”
- “R/W Relocation”
- “R/W Acquisition / Program Management”
- “R/W Property Management”
- “Outdoor Advertising Control”
- “R/W and Utilities, Scoping and Mapping”
- “Utility Coordination, Relocation and Subsurface Utility Engineering”
Partnerships in Professional Education and Training:
In partnership with the FHWA, Office of Real Estate Services, the IRWA facilitated the Federal Agency Update (FAU) in Las Vegas, Nevada January 13 – 15, 2009. The Federal Agency Update is an annual effort led by the FHWA, Office of Real Estate Services to facilitate information exchange and knowledge transfer among the various federal agencies responsible for real property acquisition subject to the Uniform Relocation Assistance and Real Property Acquisitions Act, “Uniform Act”.

The FHWA and IRWA continue to combine efforts in a developing partnership that is focused on meeting the growing demand for high quality, reasonably available opportunities for professional education. The subcommittee supports this mutually beneficial partnership in professional education that assures a more robust curriculum of consistent high quality professional education.

Future Meetings of the Highway Subcommittee on R/W and Utilities:

Executive Board Business Meeting and Planning Session
➢ The Executive Board of the Highway Subcommittee on Right of Way and Utilities meets annually in a winter forum to conduct mid-year subcommittee business, identify emerging issues, and coordinates with FHWA leadership on anticipated federal program changes. The planning session for the annual, spring meeting of the full subcommittee is also conducted at this mid-year meeting of the executive board.
   • Dates: January 4-7, 2010
   • Location: San Diego, California
   • Duration: 2½ days
   • Frequency: Subcommittee Executive Board meeting occurs once per year

Annual Subcommittee Meeting and Membership Conference
➢ The full membership of the subcommittee is composed of individual Right of Way (R/W) and Utility directors from each of the 50 states, Puerto Rico, and the District of Columbia, as well as FHWA Liaisons for both Realty and Utility program areas. Separate business meetings of the R/W and Utility Directors are incorporated into the conference schedule. An estimated 500 attendees and guests are expected to attend the general, break out, and Technical Council sessions.
   • Dates: April 18 - 23, 2010
   • Location: San Diego, California
   • Duration: 3 ½ days
   • Frequency: The Highway Subcommittee on Right of Way and Utilities meeting of the full membership occurs annually

Please visit our website for additional information about the AASHTO Subcommittee on Right of Way and Utilities
HIGHWAYS SUBCOMMITTEE ON SYSTEMS OPERATIONS AND MANAGEMENT

Officers:

Chair:  R. Scott Rawlins, PE, CPM, (Nevada)  
Vice Chair:  Constance Sorrell, (Virginia)  
Secretary:  Jeffrey Lindley, PE, (FHWA)  
AASHTO Liaison:  Mark S. Bush, PE, PTOE, (AASHTO)

Committee Activities:

The Subcommittee on Systems Operations and Management held its 2009 annual meeting in Manchester, NH, June 14-17, jointly with the AASHTO Subcommittee on Traffic Engineering. The NCUTCD Committee meeting also immediately followed the Subcommittee meetings in a continuing effort to partner and increase communications between members with related work efforts. A joint general session was held on the first half day of business to communicate and discuss ongoing related issues to both committees then for the remainder of the meeting time, each subcommittee met separately. On each full day, the subcommittees met jointly one half day and reconvened jointly on the other half of full days. This structure assisted each committee to deliberate and act on their own individual business items but then also to coordinate and collaborate on agenda items of mutual interest and to take joint actions of related concerns. Twenty six states were represented for the meeting and a combined total of seventy two meeting registrants included participants from AASHTO, USDOT RITA JPO, and FHWA offices, consultants, vendors and contractors.

In brief, the meeting agenda and proceeding included several presentations, discussion and action items as well as associate partner updates. This year marked another significant milestone for the Subcommittee on Systems Operations and Management as one of its key significant projects is now in full development, an AASHTO Guide on System Operations and Management. The primary focus area of business at the meeting was on the new and developing strategic plans of AASHTO and SCOH to assure that the strategic plan for SSOM is continually in alignment. This includes the new Congestion initiative for SCOH that is being lead by the Chair of SSOM. On a national level, the current funding legislation, upcoming expiration of SAFETEA-LU, the status of the HTF and ARRA stimulus bills were discussed as State DOT’s are continually challenged in the delivery and operations of their transportation infrastructure along with the funding short falls to deliver them.

Along with a full meeting agenda dedicated towards the new strategic plan and regular business items, several informative sessions were conducted that included:

1. Updates of USDOT FHWA and RITA JPO Systems Operations and Management initiatives  
2. Updates of TRB, NCHRP and SHRP2 related research  
4. ARRA Stimulus Bill and Operations projects included in current funding  
5. The Operations Academy through the University of MD  
6. National Transportation Operations Coalition through ITE supported by AASHTO and FHWA  
7. The National 511 Coalition  
8. National Traffic Incident Management Coalition  
   a) Continue support of the National Unified Goal that includes three objectives, 1) Responder Safety, 2) Safe Quick Clearance, 3) Prompt reliable interoperable communications.  
   b) Update on Force Practices and Procedures Task Force  
   c) Update on Communications and Training Task Force  
   d) Update on Research Task Force  
9. Overview, related activities and crosscutting issues between SSOM and SCOTE, each by the task forces. SCOTE – Safety; Signing and Marking; Work Zones; Traffic Signals; Traffic Design and Management. SSOM – Technology and Reliability; Performance Measures and Mainstreaming Operations Workforce Development.  
10. USDOT RITA ITS JPO Strategic Plan, future research presentation and SSOM member panel discussion.  
11. NCHRP 3-94 Project, Development of an AASHTO Guide for System Management and Operations development and on-going work of this key project, proposed structure, web based format and key high level issues.
12. ITS Joint Topics of Discussion
   a) ITS in Work Zones
   b) MI DOT ITS Wireless Backbone project
   c) ITS Standards current and updates
   d) Active Traffic Management and Real Time Traffic Data, both public and private sector perspectives – UofMD, I-95CC and Inrix

13. Commercialization on R.O.W. – advertisements placed on DMS and PCMS

14. SCOH Strategic Plan Discussion and Congestion Initiative, results from Spring Annual Meeting of SCOH and issues, items regarding how each of the subcommittees are to meet expectations.

15. VII IntelliDrive Consortium AASHTO Working Group Strategic Plan

16. NCHRP 20-77 Transportation Operations Training Framework update

17. Highway Capacity Manual and TRB Committee on Highway Capacity and Quality of Service updates

18. Traffic Calming issues on Rural Highways

19. Traffic Signal operations and Flashing Yellow Arrow follow up discussions

20. Opportunities for States to also have time for formal discussion presentations
   a) Michigan DOT challenges and successes in implementing an Operations program

21. SSOM and SCOTE joint member participant discussion and prioritization of SCOH ten strategic objectives

22. SSOM Subcommittee member participant discussion and prioritization of SCOH ten strategic objectives

23. Discussion for resolution on support of AASHTO IntelliDrive Strategic Plan effort and oversight

24. Discussion of ongoing and future research objectives for consideration.

25. A SHRP2 Continuation Workshop under the L06 project. A forum on Institutional Architecture for Systems Operations and Management. This half day working session focused on how changes in state DOT “institutional architecture” (culture, leadership, organizational structure and staffing, resource allocation process, partnering with public safety and local governments) can provide a more supportive basis for effective Systems Operations and Management programs and activities. Several members of SSOM provided input and review under this SHRP2 project.

26. Business session of separate and combined work of each of the SSOM Task Forces.

   With the significant activities occurring within SCOH and its development of it’s new Strategic Plan, the joint Subcommittee meeting set aside two specific times to address the membership in describing and detailing the efforts of SCOH, its process of developing a new strategic plan and the results to date of developing ten strategic objectives for inclusion into the new plan. All of the supplementary material for the joint SCOTE/SSOM meeting was provided to all the membership of SCOTE and SSOM prior to the meeting electronically as well as a hard copy booklet with same complimentary material provided to those members in attendance for their input and reference.

   The Subcommittee on Systems Operations and Management although within the Standing Committee of Highways is truly one of the overall cross-cutting committees throughout AASHTO. System management and operations really involves a multi-modal transportation perspective in the goal of operating a safe and efficient transportation system effectively. Transportation systems operations and management (SSOM) draws on the knowledge of several disciplines—including for example traffic engineering, intelligent transportation systems, maintenance, emergency planning, response and recovery, incident management, performance measurement, and system planning—applied in a comprehensive approach to increase the efficiency and safety of the transportation system for the efficient movement of people and goods, during normal daily activities or man made and natural emergencies, locally, regionally and nationally. Systems operations and management encompasses interactions among various transportation modes and between the transportation system and other functions such as emergency management, public safety, and the concerns of the general public. SSOM contributes to creation and maintenance of livable communities, improving public health by reducing air pollution, saving energy, and supporting economic development, as well as promoting safe and efficient traffic flow.

   During a joint session and individual breakout sessions of the SSOM, the six items discussed at the SCOH Spring meeting were discussed individually and proposed action items were developed in support of the SCOH Strategic Plan:

1) **Identify which of the ten objectives are relevant to the Subcommittee.**
SSOM, including the congestion objective under SCOH, is ultimately the most extensive cross cutting committee with issues that significantly affects all the proposed ten objectives other than perhaps the exception in significance would involve item 10, system preservation.

Item 1, Accelerated project delivery. ITS technologies and projects under the category of operations are a significant concern in that these transportation system improvements can be delivered and implemented in a timely manner and in a core program as traditional construction shovel ready projects. This is also true under the current environment involving the economic recovery and ARRA program.

Item 2, Identify, develop, communicate standards, specifications, policies, etc. This is a core program of SSOM as well as identified in its charge statement.

Item 3, Promote accountability through performance based management. SSOM has a significant partnership role in this objective, both in its task force and SHRP2 and NCHRP project activities. Also, the task force chair in SSOM just recently participated in an international scan on performance management and closely ties in also the Stnd Cmte on Performance Management.

Item 4, Cut fatalities in half by 2030. SSOM significantly will partner in this objective especially in the arena of ITS technologies. The advancement and deployment of ITS technologies, IntelliDrive principals involving V2V, V2I will ultimately affect driver mobility and safety in reducing fatalities and vehicular crashes.

Item 5, Communicate the value of transportation. This is also one of the core activities and goals of SSOM. Most if not all activities of SSOM especially in the area of ITS research, advancement and deployment will provide real time information to the motorist, more efficient movement of vehicles reducing congestion and green house emissions and ultimately more livable communities and quality of life.

Item 6, Advocate transportation energy and climate change. Another core activity that SSOM activities especially in the areas of advanced ITS research and deployment will effectively advance.

Item 7, Create a congestion free America. One of the core goals of the Subcommittee.

Item 8, Assist states in addressing workforce recruitment, emergence, etc. SSOM is also significantly involved in efforts under this objective. There is a specific task force lead on this objective within SSOM in addition, an NCHRP project has just been recently approved with a scope of work recently drafted and an RFP has now been sent out through TRB.

Item 9, Improve national freight network to keep America globally competitive. SSOM activities affect not only the highway user, but is a cross cutting committee in multimodal transportation in the efficient movement of people and goods on the transportation system. The transportation system involves all modes and to effectively operate the system, it also involves the coordination of multimodal transportation systems.

Item 10, System Preservation. This is really the only activity that maybe considered excluded in SSOM, as this objective is primarily focused on maintenance or asset management of the transportation infrastructure; however, managing assets and maintenance activities on the transportation system also go hand in hand with operating and managing the system.

2) Identify activities/efforts/products/research that the Subcommittee could undertake
Supplemental information was discussed and incorporated in this report.

3) Identify other committees we need to coordinate with
As SSOM is such a cross cutting committee as well as all the cross cutting objectives that SCOH has identified in its new strategic plan, SSOM is really at the fore front of this role and potential leader even as the lead committee for the Congestion initiative.
Other committees that affect or require liaison activities are almost ridiculous to list but primarily include:
SCOH, Std Cmte on Highways
SCOH-Subcmte on Traffic Engineering
SCOH-Subcmte on Highway Transport
SCOH-Subcmte on Maintenance (also involves advanced ITS technologies)
4) Establish general time frames for accomplishments
Dependant on activity as well as on activity time frames already defined.

5) Identify persons responsible
Dependant on activity.

6) Identify other major objectives
Too many objectives will only convolute a reasonable time frame and deliverable. The SSOM Strategic Plan is continually being reviewed with its task forces in order that it be continually be in alignment and complimentary to SCOH and AASHTO goals and objectives.

In an effort to compliment but not duplicate efforts, there exists now several initiatives and resulting strategic plans both directly and indirectly as a result primarily of SSOM AASHTO activities in addressing the issues of congestion or the objective now identified under the new SCOH strategic plan of: Create a congestion free America through improvements to the multimodal transportation system and improve system performance through advanced technology and operations.

There are already current initiatives being acted upon especially in each of the four strategic focus areas of SSOM relating to the SCOH objective, specifically SSOM task forces of a) technology, b) reliability, c) performance measures, and d) mainstreaming operations workforce development. There are also related activated in the various other AASHTO Standing, Special, and other Subcommittees. There are several concurrent SHRP2 and NCHRP projects and programs in action, as well as other joint AASHTO FHWA and ITS JPO initiatives and those that AASHTO also supports through FHWA on coalition activities e.g. NTOC, NTIMC, TSAG, 511 and IntelliDrive in addressing the respective operational objectives in development and for proposing further deployment strategies of achieving this goal (reducing congestion, optimizing the system, increasing safety and mobility) both in the short term and long term. The goal is also not to repeat research but also to deploy research being completed to also address these issues.

Another significant item of discussion was the draft completion of the AASHTO IntelliDrive(SM) Strategic Plan in March that articulated the commitment of the AASHTO community to advance IntelliDrive(SM) to deployment readiness. The plan described both strategic goals as well as actionable activities to prepare the states for understanding the development, deployment and operational opportunities and challenges. One of the foundations of the actionable part was to prepare a deployment plan that provided insights and directions that would clarify: 1) what approaches would be practical for infrastructure deployment, 2) what would the vehicle, communications infrastructure and application environment look like in the future and 3) the advantages and challenges of a phased deployment and a large scale national deployment. The expected outcomes of the study would be a set of scenarios that could be used to assess deployment strategies and develop business models for financing. The study would describe a set of assumptions or predictions that would paint a picture of how infrastructure deployment could occur given the development occurring in the vehicle, aftermarket devices, communications infrastructure and application development. Along with the scenarios would be descriptions of the required infrastructure, description of a set of operating applications, how the applications would be developed and utilized by the states. An additional outcome would be a set of enabling policies, required legislation, estimates of the market to provide the infrastructure and what impact this will have on agency operations. A series of tasks are also included that will be clarifying steps and building blocks to present a reasonable view of deployment and propose policies and business considerations that that will be necessary for deployment considerations in 2014. ITS JPO has also similar efforts both in research and deployment strategic initiatives, part also of their strategic planning workshop webinar specifically scheduled in September. The related strategic
plans were also included in the package developed for the joint SCOTE SSOM meeting. A joint resolution was discussed and SSOM passed the resolution in that it is the primary oversight committee of ITS programs.

Another major keystone project and work activity of the Subcommittee is the development of the AASHTO Guide on Systems Operations and Management. The project activity funded under NCHRP 3-94 is now in full swing of early development with an anticipated completion date of late 2010.

The AASHTO Highway Subcommittee on Systems Operations and Management defined system operations and management specifically as “an integrated program designed to make the best use of existing highway infrastructure through provisions of systems and services that preserve and improve performance.” State departments of transportation, metropolitan planning organizations, corridor coalitions, and other transportation agencies are being called on increasingly to expand their activities beyond the more traditional design and construction functions most closely associated with traditional civil engineering and DOT traditional business models of design and build to the broader and more diverse tasks of maintaining and effectively operating the system efficiently as a core program. This future AASHTO "Guidebook" is breaking new ground in every sense, in that also it will be an interactive electronic web-based guidebook not in the traditional sense either, as the Green book is currently. The benefit of this future Guidebook (like a side to the Green book) is that it will assist the DOTs moving in to new business models of operations and guide those DOTs in the operations and management of their transportation system enhancing the mobility and safety of our nations highways. The sponsors and team involved in this initiative want this future guide to be as useful and successful as it can be. The success of optimizing the operation of our national transportation system involves the cooperation and coordination of many partners outside the normal DOTs, during those events involving normal daily activities, during recurring and non-recurring congestion, during incidents and during local and national emergencies both man made and natural events. Moving and looking towards the future, as the web and internet are becoming the tools of the future especially with the younger community, we are blazing new ground with this guide in that it will be an interactive web based resource for the Operations community and for Transportation Agencies in changing their traditional business models of designing and building highways, but operating their system as a core program activity also. This includes MPOs, RTFs, local and county agencies as well as the emergency responder community partners in their activities also that affect the highway system owner and user.

Another major topic of activity is the coordination with related committees and associated work as it relates to Operations. In addressing considerations and possible cross cutting issues specifically between the two SCOH Subcommittees of Traffic Engineering and System Operations and Management, several topics were identified as significant cross cutting items between the two committees themselves as concerns:
1) Performance measures
2) Travel time, delay and safety measures
3) Data needs, both operational, accessible, reliable
4) Information communication
5) Planning and Operations
6) Significant coordination between these two committees
7) New technologies, in addition those that involve simulation and deployment
8) Procurement issues, projects and items that typically are not hwy construction
9) DMS, CMS, designs, use and applications
10) ITS in Work Zones, re Work Zone Rule and effective wz traffic management
11) Traffic Signal Systems, modernization, as well as advanced integrated technology
12) Material/Equipment, e.g. traffic detectors, ramp metering, etc
13) Human Factor issues, road user, driver distractions, information overload
14) ADA Strategies, devices
15) DSRC, wireless communication between traffic hardware, TMCs etc.
16) System Coordination, highways, arterials, corridor traffic movement and integration
17) ATM, advanced traffic management including VSL and speed harmonization
18) CVO, commercial vehicle operations in addition to passenger vehicles
19) TE Design, design and implementation of evacuation routes
20) Politics, legislation and impending funding always the last and most prevalent issue facing transportation professionals.

Continual coordination between committees was a commitment strongly expressed.
The business session of the annual meeting also included issues and updates from the task forces and recognition of the outgoing chairs for their contributions and valuable work. The specific task forces and summaries included and are attached:

1. Task Force Technology and Reliability:

- Retaining an active role in monitoring, supporting, and providing input to standards development on various ITS elements and systems;
- Championing innovative technology and research programs such as NCHRP, IntelliDrive and SHRP 2;
- Supporting advanced traveler information programs in cooperation with the private sector;
- Providing representation on the National Unified Goal (NUG) for Traffic Incident Management (TIM); and
- Adapting advanced operation strategies in use internationally to U.S. conditions.
- Actively managing traffic between the interstate systems and the arterials through technology with advanced traffic management systems with signal integration, traveler information and system coordination.

SSOM must be the sounding-board where States share their technology advancements and challenges. This task force should be a focal point of information sharing and education for new technologies and best operational management applications. Examination of the available data on congestion and highway usage over the past decade leads to the conclusion that congestion is getting worse. Traditionally, State DOTs have concentrated on mitigating recurring congestion by removing bottlenecks and improving poor signal timing. Building new roadways or adding additional lane miles is an accepted practice; one that focuses on the long-range planning process and requires major financial investments. However, the congestion is increasingly related to non-recurring forms of congestion, such as traffic incidents, work zones, bad weather, and special events. Reliability is being recognized as a major facet of congestion, and is defined as the variability (or unpredictability) of travel times over a period of time. Although non-recurring congestion is a regular phenomenon, it is often inefficient, impractical, or counterproductive to apply standard capacity additions to these types of problems. As a result, new approaches and relationships are necessary to effectively diminish congestion and enhance mobility by focusing on reliability.

Within the past decade, increasing emphasis has been placed on Transportation Operations – strategies geared to optimizing the performance of the existing infrastructure rather than major physical expansions. We need to improve efficiency, safety and reliability with the existing infrastructure through the use of technology. Most of what is embodied by Transportation Operations can be traced to addressing the causes and impacts of unreliable events. However, there is a strong need to compile an “operations toolbox” that States can use in deploying strategies.
2. Task Force Performance Measures:

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<th>Action</th>
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| 1. Generate SSOM resolutions and Subcommittee actions | A. Recommend the use of the NTOC operations performance measures (NCHRO 20-7)  
B. Get AASHTO to publish NCHRP 20-7 report | A: ongoing  
B: Currently Pending |
| 1. Produce Outreach messages and materials | A. Promote travel time as the basis for mobility performance measures  
B. Develop marketing materials to promote the implementation of the NTOC performance measures  
C. Develop an ongoing series of "snapshots" of best practices in performance measurement (keep it short, sweet, and pretty) | B/C-a. TRB (ABC30) and FHWA are co-sponsoring a knowledge share website that was recently updated to include a separate focus group for Systems Operations and Reliability metric issues and topics. (see under I below)  
B/C-b. FHWA is nearing completion of a TIM Performance Measurement Knowledge Management System, which is comprised of two components—a Knowledgebase and a LISTSERV (see under III) |
| 2. Develop NCHRP Operations Metric focused research statement “(updated action language)” | 1) focus on the effectiveness of operations deployments, not just what has been deployed, 2) define common data, analytics, and presentation styles for communicating performance in the future | Developed proposal and NCHRP 20-24 panel approved funding for a quick turn around project now underway:  
20-24(37)D Measuring Performance Among State DOTs, Sharing Best Practices- Operations Performance Using Incident Response Time (see under I below)  
Lead : Daniela Bremmer |
| 3. Develop an NCHRP Research statement: “Best Methods and Practices for conveying Operations Performance Measures.” | Summary of current practice; what has worked well; examples from other disciplines and how they can be adapted | - NCHRP 20-24 funded-(see under I below)  
- TRB-ABC30 Performance measure exchange (see under II below)  
- FHWA Knowledgebase underway (see under III below) |
B. Operations Performance Measurement Workshop | A.-FHWA Knowledgebase underway (see under III below)  
A.-TRB-ABC30 Performance measure exchange (see under II below)  
B. workshops currently underway (see under IV below) |

Details:

I. NCHRP 20-24(37)D Incident Response Comparative performance Measurement Study:
The NCHRP 20-24 panel just approved the following project, jointly sponsored by AASHTO’s Standing Committee on Performance Management (SCOPM) and ABC30:


This complements the previously completed comparative performance measurement studies on Construction Project Cost and Schedule (20-24(37)A), and Pavement Condition International Roughness Index (IRI) (20-24(37)B). The third comparative measures study Safety 20-24(37)C— is currently being finalized and uses the Fatalities Accident Reporting System data.

This previous work by the National Cooperative Highway Research Program (NCHRP) has demonstrated the value of comparative performance measurement. Each of these projects has involved compilation of detailed performance data for multiple DOTs, scrubbing the data to ensure comparability, calculation of performance measures for each agency, composition of peer groups for comparative analysis, identification of the top tier of agencies with respect to the selected measures, and interviews to determine practices that may be related to exemplary performance.

DOT experience with increased volumes on our roads over the past two decades indicates that one of the viable methods of improving mobility is to provide better real-time incident management - the faster an accident or breakdown is cleared, the sooner traffic resumes to normal flow. This study will be used to identify successful practices in operations activities of a state DOT. This performance indicator can highlight best practices in specific incident response techniques as well as organizational structures, relationships with partner organizations, and budgeting practices.

II. TRB ABC30- Performance Measurement Knowledge Exchange Update with Operations Metric Focus: System Operations and Reliability Measures

TRB (ABC30) and FHWA are co-sponsoring a knowledge share website that was updated and does now include a separate focus group for Systems Operations and Reliability metric issues and topics.

[http://knowledge.fhwa.dot.gov/cops/pm.nsf/home](http://knowledge.fhwa.dot.gov/cops/pm.nsf/home)

**System Operations and Reliability Measures group**: This Discussion Board is intended to provide a forum for practitioners that are interested in performance measurement issues specifically related to system operations and congestion management. The forum is here to share knowledge, experience and research with each other. This includes the exchange of information concerning performance measurement efforts and needs in the areas of congestion management, Intelligent Transportation Systems (ITS), traffic operations, traffic incident management, and freight mobility management.

III "Knowledgebase": TIM Performance Measurement Knowledge Management System:

At the completion of the TIM Performance Measurement Focus States Initiative (FSI), FHWA committed to implementing a knowledge exchange capability to support continued collaboration between the focus states, as well as with other states interested in measuring TIM performance. FHWA is nearing completion of a TIM Performance Measurement Knowledge Management System, which is comprised of two components—a Knowledgebase and a LISTSERV.

- A searchable, browse able Knowledgebase: Users can search by keyword, or browse, this online repository to find resources generated through the focus state initiative in the field doing TIM performance measurement. Everyone can contribute to the knowledgebase by submitting documents or other resources for posting on performance measurement.
- A LISTSERV managed email list: Will complement the Knowledgebase by allowing users to tap into the informal knowledge and insights of their peers across the country from the convenience of their desktop email. LISTSERV to let others know about developments or events of possible interest related to TIM performance measurement, ask questions, share tips, or make people aware of a new document or resource you may be making available through the Knowledgebase.
IV. Operations Performance Measures Workshop and Performance Journalism Webinar

The FHWA Office of Operations is developing an Operations Performance Measures workshop focusing on state and local transportation agencies. The workshop will cover the gamut of operational strategies and measures while focusing on accountability / reporting to the public, influencing investment decisions. The final pilot of the workshop will be held in Nashville, Tennessee during a statewide Operations Summit on November 19, 2009. Additional workshops will be offered in 2010.

In a related effort, a Performance Journalism webinar and white paper is being developed focusing on operations performance measures. The webinar will focus on how best to communicate measures and their meanings to the public and decision makers. The webinar will be held in October or November this year.

3) Task Force Mainstreaming Operations and Work Force Development

- New or ongoing research and publications

NCHRP 20-86
Attracting, Recruiting, Developing, and Retaining Skilled Staff for Transportation Systems Operations and Management

Funds: $225,000
Contract time: 12 months (includes 3 months following completion of the draft final report, for panel review and consultant revisions)
Authorization to Begin Work: January 2010 -- estimated
NCHRP Staff: Andrew C. Lemer
Phone: 202/334-3972
Email: alemem@nas.edu
RFP Close Date: 9/24/2009

This project was initiated through SSOM and NCHRP 20-7 Panel funding. Research is needed to define more clearly the needs for System Operations and Management (SOM) management, professional, and technical staff and resources for attracting, retaining, and enhancing the skills of SOM staff. The objective of this research is to provide transportation agencies with strategies and resources to meet their needs for SOM staff. The research will consider the potential demand for and supply of SOM workforce; the actions transportation agencies may take to attract, recruit, develop, and retain skilled staff with SOM capabilities; and the tools that are available or may be developed to assist agencies to take action. This project will build on the results of NCHRP 20-77, Transportation Operations Training Framework.

NCHRP 20-77 [Active]
Transportation Operations Training Framework

Project Data
Funds: $300,000
Staff Responsibility: B. Ray Derr
Research Agency: University of Maryland
Principal Investigator: Kathleen Frankle
Effective Date: 7/11/2007
Completion Date: 9/10/2009

The AASHTO Highway Subcommittee on Systems Operations and Management (SSOM) has defined systems operations and management as: “An integrated program designed to make the best use of existing highway infrastructure through provision of systems and services that preserve and improve performance.” Many state departments of transportation (DOTs) view system operations and management as a growing priority but are finding a shortage of management, professional, and technical staff with appropriate skills and understanding. Operations combines elements of numerous disciplines—system management, traffic engineering, intelligent transportation systems, maintenance, emergency operations/incident management, performance measurement, and planning—into an overall approach for increasing the efficiency and safety of the transportation system.
Practitioners tend to have good skills in their discipline but often lack a broader perspective related to operating the transportation system.

Define core transportation operations functions for use in this project. For each core operations function, describe key, generic positions in transportation agencies and describe core competencies for those positions. Also describe positions and core competencies for operations management positions.

Project L06: Institutional Architectures to Advance Operational Strategies
Budget: $1.0 million (42 months)
Objective: The objective of this project is to undertake a comprehensive and systematic examination of the way agencies should be organized to successfully execute operations programs that improve travel time reliability.

SHRP 2 L06 [Active]
Institutional Architectures to Advance Operational Strategies
Project Data
Funds: $1,000,000
Staff Responsibility: William Hyman
Research Agency: PB Consult, Inc.
Principal Investigator: Steve Lockwood
Effective Date: 2/28/2007
Completion Date: 2/27/2011

Research objective is to prepare a plan that frames the key issues involved in creating an improved institutional architecture (organizational structures, policies, procedures, relationships, etc.) that supports and manages operational activities that can improve travel time reliability.

Prepare a Draft Summary Report that describes the key elements of transportation agency institutional architecture; the issues and challenges of improving agency institutional architecture; and recommendations on how transportation agencies can implement changes aimed at improving travel time reliability. The report should include best practices from transportation and other agencies found in the study; benchmarks and performance standards that agencies can use in comparing their programs against what is considered to be best practice; strategies for overcoming shortcomings; and an appendix of relevant resources including model legislation and memoranda of understanding. It should also include a section on critical immediate actions that are basic to success; highly likely to yield improvement; easy to implement; and pave the way for other, more long-term changes.

Other Activities for The Coming Year

NCHRP 20-7 (DRAFT) Proposed Research Needs Statement
Performance Management for Maintenance and Operations

The intent of this study is to identify the need for performance management tools and performance indicators (level of service, #/lane mile) assess current products for use by state and local DOTs and recommended next steps to either implement the results or to complete the research.

The objective of this research is to determine if there are existing tools and determine performance of transportation maintenance and operations that can be used by State and local DOTs to prioritize and manage current and future workload. The results of this research will be used to develop recommendations for future steps that can lead to development of real time nation wide performance measures and associated funding mechanisms.

Follow-up is required to coordinate with Standing Committee on Maintenance for the project to be reconsidered by the NCHRP 20-7 Panel. Larry Orcutt to work with SOM to get them to co-sponsor the research proposal.

NCHRP 20-7 (DRAFT) Proposed Research Needs Statement

September 15, 2009
Transportation Operations Research Communications, Awareness Needs Assessment & Implementation Plan for State DOT’s

Institutional, programmatic, and technical guidance for state transportation agency System Operations & Management (SOM) programs have been and are being developed through projects within the NCHRP, SHRP2, USDOT-FHWA, and USDOT-RITA-ITS JPO initiatives. Specific users of this guidance within state transportation agencies generally do not have consistent awareness of the resources that are available for their use, or that are under development and in need of their input.

The rapidly evolving nature of transportation operations as a function, along with its programmatic complexity, demand broader and more direct access to this existing and emerging national guidance. This need for broad and direct access is more intense for transportation operations than for more established and stable knowledge areas such as structures or pavements.

A communications and awareness needs assessment of state transportation agencies would allow TRB and AASHTO to more effectively and efficiently disseminate transportation operations research results to program leaders and practitioners. The assessment would also enable broader and more representative involvement of the national transportation operations community in national transportation operations research program development and project delivery. Finally, the assessment would recognize the distinct knowledge needs of central office or headquarters, as well as district or regional parts of the agency, and distinguish between the roles and knowledge needs of policy-makers and practitioners.

Summary of Activities and Accomplishments from October 2007 to October 2008:

- Refined Strategic Plan for Systems Operations and Management for enhanced alignment with the approved AASHTO Strategic Plan and SCOH Strategic Plan and Congestion Initiative that is currently in development and also including the AASHTO IntelliDrive Strategic Plan.
- Aligned and revised Task Forces to meet the goals and objectives under the various new Strategic Plans.
- Continual coordination with applicable research under NCHRP and SHRP2.
- Formulated a position paper and NPRM response balloted by SSOM and approved by AASHTO regarding Docket No. FHWA-06-24219, Real Time System Management Information Program submitting comments and recommendations on the notice of proposed rule making.
- Formulated a position paper and NPRM response balloted by SSOM and sent on behalf of AASHTO regarding Docket No. RITA 2009-0001, Establishing Strategic Direction for Intelligent Transportation Systems.
- Balloted and passed several ongoing NTCIP standards.
- Endorsed a draft resolution in conjunction with the Subcommittee on Traffic Engineering as SSOM is the SCOH oversight committee on the IntelliDrive program (formally known as VII Program).
- Balloted and passed a resolution on the IntelliDrive Strategic Plan in conjunction with Traffic Engineering and that SSOM is the primary oversight committee as it relates to its charge statement.
- Initiated and in current development of an NCHRP 03-94 funded project to develop for future completion and ratification of an AASHTO Guide to Systems Operations and Management, a very significant and keystone project under the auspices of the Subcommittee, for SCOH and for AASHTO. This future guide will also be breaking new ground as it is intended to be an interactive web based guide to better serve our transportation agencies in meeting the demands of

Names of other committees involved or with an interest in each activity:

Special Committee on Wireless Communications and Technology
Special Committee on Transportation Security and Emergency Management
Special Committee on Intermodal Transportation and Economic Expansion
SCOH-Subcommittee on Traffic Engineering
SCOH-Subcommittee on Maintenance
SCOH-Subcommittee on Highway Transport
Standing Committee on Planning
Standing Committee on Performance Management
Standing Committee on Highway Traffic Safety
SCOHTS-Subcommittee on Safety Management
Additional committees are coordinated with on a needed basis depending on specific subject matter.

**Dates and locations of future committee meetings:**

**2010:**
Proposed joint meeting with ITS America Annual Meeting, May 2010, Houston, TX

**2011:**
Proposed meeting in Michigan with MI DOT or other joint meetings to be solicited.

Other proposed joint meetings include SCOWCoT, SCOTSEM and TRB related committee summer meetings e.g. AHB10 Regional Transportation Systems Management and Operations, or other related committees. In addition, VA DOT has also expressed interest to host an upcoming meeting either in conjunction with Virginia Tech showcasing the ‘Smart Road’ or Northern Virginia area showcasing many of the active traffic management practices that are being performed.

Additional requests for joint meetings are also being solicited with other related Standing or Subcommittees.
HIGHWAYS SUBCOMMITTEE ON TRAFFIC ENGINEERING

Officers

Chair                Del McOmie, Chief Engineer, Wyoming Department of Transportation
Vice Chair           Tom Hicks, Director, Traffic and Safety, Maryland State Highway Administration
Secretary           Robert Arnold, Director of Transportation Operations, FHWA
AASHTO Liaison      Ken Kobetsky, Program Director, Engineering

Review of Subcommittee Charge Statement

No change to existing charge statement.

Proposed Schedule

Plans for 2009-2010 include continuing work with the NCUTCD, including the mid-year meeting in January, summer meeting in June, and proposed changes to the MUTCD.

The five Technical Committees have the following work plans:

Work Zone

- Incorporate new technologies into WZ Best Practices document.
- Showcase (investigate and demonstrate) emerging and existing technology benefits which result in reduced user cost, increased mobility, construction cost saving, etc.
- Identify needed changes to regulation, policies, procedures, specification or related contract documents for the promotion and incorporation of these technologies.
- Explore feasibility of demonstration projects both using and highlighting advantages of ITS WZ traffic management, real-time WZ analyzes, and other WZ traffic adaptive and responsive operations.

Signing and Marking

- Send copies of Are Your Signs Working For You?® to agencies involved in sign installation and maintenance. The time frame is fall of ’09. Bruce Ibarguen to work with Ken Kobetsky and AASHTO HQ to get this accomplished.
- Work with AASHTO members to focus comments to the NPA-MUTCD docket on various signing issues to include:
  a. Impact to 1-inch to 30-feet legibility requirement
  b. Need for flexibility on diagrammatic signs
  c. Need to create a separate Part for toll facilities
  d. Need to use standard procedure for adoption/inclusion of several symbols
  e. Need to assess driver comprehension of as many as twelve logos at a single site
- Airport Wayfinding task force, chaired by Dave Woodin, NYS DOT, to work with Kevin Sylvester, FHWA, on the need for national standards for signing to and at airports.
- Bill Lambert, NH DOT, will report on NCHRP 20-7 (256), exploring the impact of digital billboards on the driving experience.
  a. Work with Hari Kalla, FHWA, to summarize method being used by states to comply with sign retro-reflectivity standard in the MUTCD.
  b. Continue to work with FHWA on any proposed language in the MUTCD on marking retro-reflectivity.
  c. Project 20-7(11) on “Use of Colored Pavements for Special Uses and/or Users” will be explored. The Team feels that this project includes multi-modal transportation systems. The Team will need to coordinate with the MUTCD National Committee, in particular with the Marking TC. The time frame for this effort is June 2010.
  d. A task force will examine how states are addressing wrong way maneuvers in regard to the occurrence of such crashes.

Traffic Design, Regulation and Management
• Automated Enforcement. The technical team will continue discussions concerning the issues of automated enforcement. The team identified the need for a guideline or a best practices report to specify standards that should be used in red light running applications. An NCHRP synthesis is presently underway that may provide the information necessary to accomplish this need. The team will monitor the progress of this synthesis and will evaluate it when completed.

• Bicycle Guideline. The technical team will monitor the development of the Bicycle guideline and will report any issues to SCOTE - and a recommendation for subcommittee approval.

• Speed Operational Issues. A technical team member will review the latest research on the issue of design versus operational speed and will report to the team at the next annual meeting. Distribution of information to the SCOTE committee on this subject will be made when appropriate.

• Driver’s Handbook. The team will review the material developed for State Driver’s Manuals on the subjects of Older Drivers, Trucks, Work Zones, Bicycles, and ITS as part of NCHRP 20-07 Task 212. The final write-ups will be presented to the SCOTE committee.

• Roundabout Design Issues. A review of existing state programs regarding the criteria used for selecting a roundabout over a traffic signal will be conducted along with a review of the revised guideline to be issued by FHWA. A report of the findings will be presented to the SCOTE committee.

• Congestion Mitigation Strategies. A review of the use of adaptive signal systems to improve congestion on traffic arteries will be conducted. The use of these systems appears to have great potential to improve congestion and to reduce gas consumption. There is an NCHRP synthesis beginning on this subject and could provide the information desired. Ed Fisher (Oregon) will represent the technical team on the panel for this synthesis. Information from this synthesis will be discussed by the task force and information will be distributed to the SCOTE committee.

Traffic Signals and Roadway Lighting

• Goal. By use of NCHRP 20-7, Develop a Graphical Traffic Signal Design Aid software that will use MUTCD language and guidelines to produce graphical signal design options that are MUTCD compliant. Conference call was held January 26, 2009. Contract is underway and first deliverable software requirements due on June 19, 2009.

• Work Plan.
  a. The technical team will work with AASHTO SCOTE to submit a proposal to secure NCHRP 20-7 funding for development of this software.
  b. The Traffic Signal Technical Team will work as the oversight committee, as needed, during development of the software.
  c. Committee agreed to take on Project NCHRP 20-07, Task 283, Flashing Yellow Arrow Evaluation. Project was approved by the SCOH in May 2009. First conference call to take place late summer of 2009.

Safety and Security

The SCOTE Safety Technical Committee has proposed the following initiatives for 2009/2010:

• Continue to liaison with leadership of the Highway Safety Subcommittee to provide traffic engineering perspective and coordinate activities across the 4 “E”s.

• Perform literature search, survey of states on emerging safety treatments including rumble stripes and strips, median barrier, special curve warning treatments, recovery area methods and advance warning for end of green (flashing indication) and share these among the engineering communities.

• Review and comment on the Safety Management Committee’s market packages related to engineering and assist in the distribution and dissemination of the information.

• Develop a web share point tied to Robert Hull’s one-stop shop Utah DOT safety website.

• Find out “what the next thing” is . . . new and innovative . . .

Upcoming Meetings

June 2010, Chicago, IL

June 2011, Idaho
Report on Completed Efforts

The Project Management and Delivery Task Force has two charges: to address project management and delivery issues “that cut across the traditional functional areas within State DOTs and, if needed, recommend a structure within AASHTO to address these issues and provide technical assistance” and to “continue the existing Context Sensitive Solutions (CSS) work program identified jointly by AASHTO and FHWA, and determine how best to institutionalize CSS within AASHTO.”

The Task Force met on May 4, 2008 in Branson, Missouri and has conducted its remaining business through conference calls, most recently a conference call held June 11, 2009 to update task force members on progress toward identified goals and evaluate remaining work to complete the task force’s efforts by fall, 2009.

The Task Force’s efforts to address cross-cutting project management and delivery issues were aided by the completion of NCHRP Project 20-7 Task 258, Identification of Cross-Cutting Issues related to the Development, Management and Delivery of Transportation Projects and Programs. The objectives of this research project were “1) to identify and prioritize cross-cutting issues related to development, management, and delivery of projects and programs, and 2) to develop an organizational plan for integrating these issues within the AASHTO committee structure.” The report makes several recommendations:

**Recommendation 1, The Role of CSS in the AASHTO Committee Structure** – Research done for the report confirms broad endorsement of the CSS principles. AASHTO should not create a task force, subcommittee, or full committee focused on Context Sensitive Solutions. Rather, the existing committees within AASHTO should be charged to consider the principles of CSS as they perform their other duties including the preparation of manuals, guidebooks, guide specifications and other work products. No further changes to AASHTO’s committee structure are recommended at this time.

**Recommendation 2, AASHTO Should Examine and Improve Committee/Subcommittee Collaboration** – AASHTO should address the concerns expressed by those participating in this study that the “silos” nature of its committee structure inhibits collaboration and communication on cross-functional issues. AASHTO should undertake a review of the Council on Operations and the Council on Project Delivery and consider ways to make the intended purposes of these councils more of a reality.

**Recommendation 3, Implement Other Proven Project Delivery Strategies** – AASHTO and the member states should work together to share the information contained in this report, including the strategies already being used by state DOTs to more effectively deliver projects. Even with no further research, substantial benefits will accrue to those who take the ideas in this report and implement them in their state. In addition, the nature of this study leads one to believe that other ideas exist that would have similar benefit as they are shared from one state to another.

**Recommendation 4, Coordination of Project Delivery Activities in AASHTO** – AASHTO should inventory all project delivery activities and initiatives currently in their committees, subcommittees, and task forces to reduce duplication of effort, leverage scarce resources, and otherwise make the efforts of this important area of the state DOTs’ mission more effective.

To meet the second charge to the Task Force addressing continuing the CSS work program identified jointly by AASHTO and FHWA in a Summary Report dated March 2007, a report is attached that reviews the status of Action Items from that work program. The Task Force determined at its May, 2008 meeting that two items were complete and six were underway. Of the six underway, most are now complete. Significant interest was voiced about one of these, a guide offering technical guidance to DOT senior leaders and practitioners seeking to comprehensively integrate CSS principles in planning project development. Comments from the Branson meeting were incorporated into development of the guidance and the project has recently been completed.

The Task Force reviewed an additional six action items from the 2007 CSS Action Plan that were not yet underway and agreed to proceed with three tasks. Of these, a synthesis proposal for NCHRP 20-6 addressing
“Successful Tort Liability Defense Practices for Design Flexibility: Best Practices for Design Documentation” has been drafted and is being submitted to the 20-6 Panel for consideration in October, 2009. Two action items addressing a marketing plan for AASHTO’s “A Guide for Achieving Flexibility in Highway Design, 2004” and need for better understanding of the evolution of AASHTO’s geometric design guidance resulted in a 3-hour webinar entitled “Understanding Flexibility in the AASHTO Green Book: A Webinar on Geometric Design,” presented by consultants hired by the Center for Environmental Excellence by AASHTO on June 15, 2009. It was decided that the final Action Plan item, submission of a research proposal to the NCHRP 20-7 program exploring DOT organizational structures that support CSS and successful project delivery, should be tabled for now as there are several research projects underway or recently completed that likely address at least some aspects of the articulated need.

The Project Management and Delivery Task Force has thus addressed and completed its two charges, to address cross-cutting project management and delivery issues and to continue the CSS work program identified jointly by AASHTO and FHWA. Regarding how best to institutionalize CSS within AASHTO, the Task Force recommends that AASHTO take steps to ensure that all AASHTO committees consider and respond to CSS principles as they advance their efforts in each functional area.

Attachment: Report on CSS Action Plan

Review of Action Items from Joint AASHTO/FHWA CSS Work Plan 8-31-09

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<th>Action Items</th>
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<tr>
<td>1. AASHTO Subcommittee on Design devotes a portion of its summer meeting to CSS (June 11-13, 2007)</td>
<td>Completed.</td>
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<td>2. Determine what CEOs need to know about CSS and document in a one-page information flyer or other suitable format.</td>
<td>Completed. Flyer distributed at the 2007 AASHTO summer meetings, is available by request from AASHTO staff, and is posted on the AASHTO website at: <a href="http://environment.transportation.org/pdf/context_sens_sol/CSS_Flyer_Final.pdf">http://environment.transportation.org/pdf/context_sens_sol/CSS_Flyer_Final.pdf</a></td>
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3. Marketing and outreach materials are developed and disseminated to transportation agencies concerning the Integrating CSS Self-Assessment Tool, currently being developed by FHWA.

The CSS Self-Assessment tool is now officially named “Integrating Context Sensitive Solutions into Transportation Practice.” An update on the status of the Guide was made by Janet D’Ignazio (Principal Investigator) during the June 11, 2009 conference call of the PMD Task Force. It has now been released online and can be accessed at http://www.contextsensitivesolutions.org/content/reading/integrating_context_sensitive_s_/resources/Integrating_CSS_into_Transportation_Practice_Guide.pdf/

The Integration Guide offers technical guidance to DOT senior leaders and practitioners seeking to comprehensively integrate CSS principles in planning and project development. The Integration Guide is intended to provide information to executives interested in CSS implementation organization-wide as well as practice-level integration. Technical guidance is supported by an Implementation Framework to assist in addressing organizational change efforts needed to integrate CSS principles into transportation operations. The Guide also includes instruction for the application of an organizational gap analysis that can be tailored to the user’s specific organization.

4. Marketing and outreach materials developed and disseminated to transportation agencies concerning the future NCHRP Report 15-32 (“CSS: Quantification of the Benefits in Transportation”).

This project is almost complete and therefore there is no need to prepare outreach materials. Task Force members were given a brief overview of this project as well as a preliminary summary of results at the conference call on June 11, 2009. Final results of this project will be posted here when available: http://www.trb.org/TRBNet/ProjectDisplay.asp?ProjectID=412.


The topic was submitted once to NCHRP 20-5 for Synthesis but was not chosen. The Task Force has pursued this topic as described under Action Item #10.
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<td>6. Document and share CSS training materials</td>
<td>Completed. FHWA recently released “A Guide to Building CSS Knowledge and Skills for Successful Project Delivery” (“the Training Guide”) as a web-based document at <a href="http://www.fhwa.dot.gov/context/trainingguide/index.htm">http://www.fhwa.dot.gov/context/trainingguide/index.htm</a>. The purpose of the Guide is to provide background and resources to staff of state departments of transportation assigned the role of developing or improving a CSS training program. The Guide is the product of two years of research including 35 phone interviews with state DOTs, FHWA division offices, consultants, and FWHA Resource Center staff. It provides many examples of existing CSS courses, along with materials where available, for states to pull from in designing their own training. It was launched in May 2009 via a public webinar with 140 attendees. Task Force members were given a brief overview of the Training Guide at the conference call on June 11, 2009.</td>
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<td>7. Complete framework for promoting and sponsoring peer exchanges and conduct a pilot peer exchange in 2007.</td>
<td>FHWA has provided a framework for Peer Exchanges. These CSS Peer Exchanges will be tailored to meet the needs of the invited state DOTs. AASHTO sponsored two peer exchanges in May and June, 2008 in Indiana and Nevada.</td>
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<td>8. Advance CSS national dialogue.</td>
<td>The CSS National Dialogue is currently ongoing. Task Force members were given a brief overview of its current status at the conference call on June 11, 2009. Updated information can be found on its website: <a href="http://www.cssnationaldialog.org/index.asp">http://www.cssnationaldialog.org/index.asp</a></td>
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<td>10. Submit proposal to AASHTO’s SCOE for domestic scan on tort liability.</td>
<td>Changed. Replace with an NCHRP problem statement that focuses on successful defense case studies of tort liability cases involving design judgments. Submit to NCHRP 20-6 legal research for follow-up. A draft research proposal was presented to the Task Force at the conference call on June 11, 2009. Consultants have made minor changes suggested by the Task Force members and will submit the proposal on behalf of the Task Force to NCHRP 20-6.</td>
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<td>11. Develop and implement a marketing plan for promoting AASHTO’s “bridging” document <em>(A Guide for Achieving Flexibility in Highway Design, 2004)</em>, including awareness and technical education components.</td>
<td>These two action items were combined in the form of an NCHRP problem statement that focuses on the development of a Green Book 101 course. This course would provide information on understanding the underlying research and principles behind the Green Book’s design criteria as well as a thorough understanding of the flexibility inherent within the Green Book.</td>
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<td>12. 2008 Symposium on the Evolution of AASHTO’s Geometric Design Guidance</td>
<td>This action item resulted in a 3-hour webinar entitled &quot;Understanding Flexibility in the AASHTO Green Book: A Webinar on Geometric Design,&quot; presented by consultants hired by AASHTO CEE on June 15, 2009. A recording of the webinar is expected to be posted on the AASHTO CEE website (<a href="http://environment.transportation.org/environmental_issues/context_sens_sol/recent_dev.aspx">http://environment.transportation.org/environmental_issues/context_sens_sol/recent_dev.aspx</a>). No further work was found necessary by the Task Force at its meeting on June 11, 2009.</td>
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<td>13. Obtain funding and set up/organize a peer exchange on CSS performance measures in 2008.</td>
<td>Drop action item for now. Members of the Task Force viewed this proposal as aligned with FHWA’s assessment language which causes some concern for state DOTs.</td>
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<td>14. Submit research proposal to NCHRP SCOH 20-7 that explores DOT organizational structures that support CSS.</td>
<td>A summary of research available on this topic presented to the Task Force at the conference call on June 11, 2009 entitled, “How Have DOTs Structured Staff and Program Activities to Support Successful Project Delivery?” The research proposal notes several current research projects underway or recently completed that likely address at least some aspects of the articulated need. Subsequent discussion among the Task Force members indicated that because many of the studies are still underway, it does not seem like the time is right for a synthesis or additional research. This item is tabled.</td>
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AASHTO TASK FORCE TO DEVELOP THE HIGHWAY SAFETY MANUAL (HSM)

Members of the AASHTO Joint Task Force:

**Chair**
D. W. Vaughn, AL

**Region 1**
Wilbur Dixon, NJ
Gary Modi, PA
Donna Hardy, DE
Kirk McClelland, MD
Bruce Ibarguen, ME

**Region 2**
Cindy Cramer, WV
Jim Mills, FL
Bart Thrasher, VA
Kevin Lacy, NC
Lap Hoang, FL – (Resigned, due to health reasons)

**Region 3**
Mike Curtit, MO
Priscilla Tobias, IL
Tim McDonald, OH
Mark Bott, MI

**Region 4**
Mark Gaydos, ND
Joe Garcia, NM
Robert Hull, UT
Ted Trepanier, WA

Background:
The AASHTO Joint Task Force was created to work with the NCHRP panel to oversee and provide input to the consultants who are developing the Highway Safety Manual (HSM). The goal of the AASHTO task force is to help ensure that the HSM is a document that will be both useful to the State DOTs and appropriate for inclusion as an AASHTO guide document.

HSM Outline:
The Joint Task Force worked closely with the TRB Task Force to develop the HSM and the NCHRP. An outline for the HSM has been developed as follows:

**Part I – Introduction and Fundamentals**
1. Introduction and Overview
2. Fundamentals

**Part II – Knowledge**
3. Roadway Segments
4. Intersections
5. Interchanges
6. Special Facilities and Geometric Situations
7. Road Networks

**Part III – Predictive Methods**
8. Rural, Two-Lane Roads
9. Rural, Multi-lane highways [i]
   1. Introduction
   2. Methodology
   3. Procedures for Application
   4. Safety Issues Not Explicitly Addressed by the Methodology
   5. Sample Calculations
   6. Software for Performing Calculations
   7. References
   8. Appendices
10. Urban and Suburban Arterial Highways

**Part IV – Safety Management of a Roadway System**
Purpose
Organizational/Administrative Activities:
The ballot process for AASHTO members to approve the First Edition is underway. We know that there are areas that need additional research or improvement. Our effort, based on the research carried out by NCHRP, is to gain the support of the AASHTO members, FHWA.

The First Edition of the Highway Safety Manual (HSM) is the result of a significant 10-year research effort carried out by NCHRP and funded by AASHTO members and FHWA. The effort includes thousands of hours given by volunteers in the review and drafting of language for this document.

The HSM provides analytical tools and techniques for quantifying the potential effects on crashes as a result of decisions made in planning, design, operations and maintenance of highways and highway systems. It also provides knowledge that is necessary for transportation professionals to draw from in everyday aspects of their jobs. The HSM provides direction on which tools are appropriate to use in any given situation or the amount and quality of data available. The HSM provides the user with the tools to assess different alternatives to reduce crash frequency or severity.

An important consideration in the writing of the HSM was to assure that it could not be used against the user or agency. The HSM is written to make it clear that: 1) there is no legal obligation to use the HSM and 2) the HSM explicitly states that it is not intended to be nor does it state it should be used as a legal standard of care for users. Moreover, use or nonuse of the HSM, no standard of conduct or duty to the public or any person is created by the publication.

Recent Meetings: August 17-19, 2009 – HSM Workshop, Irvine, California

Future Tasks:
Once the HSM is published, AASHTO should designate a Committee/Subcommittee to take ownership of the HSM and be responsible for it’s maintenance and update as required. It will also be necessary to continue to work with the TR Group to identify research topics to further enhance the usefulness of the HSM.

Recent Meetings:
TRB Annual Meeting
TECHNOLOGY IMPLEMENTATION GROUP (TIG)

Officers:
Chair: Kevin Chesnik, Wisconsin DOT
Vice Chair: Vacant
Secretary: Bryon Lord, FHWA
AASHTO Liaison: Keith Platte

Summary of Activities and Accomplishments from October 2008 to October 2009:

New Members

There were three new members added the EC in the past year: Mr. Mark VanPortfleet from Michigan DOT as the Region 3 representative; Mr. Brian Blanchard from Florida as the Region 2 representative; and a Mr. Len Sanderson as a new representative for ACEC.

Vacancies on the TIG EC

Currently we have two opening in the TIG Executive Committee: one in Region 3 and the Vice Chair position. If you are interested in joining the TIG EC, please send a short resume to Keith Platte, kplatte@aashto.org.

New Technologies

The new Focus Technologies for 2009 are the following:

- **URED (Utility Relocation Electronic Document Management System)**
  The sponsoring state for this project is Pennsylvania. Efficient and effective internal communications, and particularly external communications with utility companies, are essential during the project planning process. Web-based systems have been developed providing utility companies access to utility related project information as well as the means of submitting utility documents to the state DOT. This system expedites communications, improves use of proper documentation format, and prevents loss of documents.

- **GCED (Grade Crossing Electronic Document Management System)**
  The sponsoring state for this project is Pennsylvania. New federal requirements have recently been enacted to better assure timeliness of railroad crossing inventory information updates, and many state DOTs are currently reviewing and upgrading their inventory systems. Newer electronic systems for grade crossing information management have improved state DOT efficiency in maintaining needed information and in communicating this information to the Federal Railroad Administration. Field site visits can often be reduced as photographs of sites may be viewed in the office or during conference calls between state DOT, federal, and public utility commission personnel.

- **EPGT (Environmental Planning GIS Tools)**
  Two states are sponsoring this project, Maryland and Texas. Environmental planning involves extensive use of geographic representations of areas involved in project planning. Several GIS-based tools have been developed in recent years to provide greater state DOT efficiency and effectiveness, thereby expediting the environmental planning process and facilitating development of higher quality plans for protecting environmental assets of the state.

Open Technologies

The following are the Technologies that are currently in Open Status

- Linear Reference System (2008)
- Surface Resistivity (2008)
- Self Propelled Modular Transporters (SPMT) (2006)
• Construction Analysis Software Tools (CAST) (2005)
• Precast Concrete Paving Slabs (PCPS) (2005)
• Virtual Weight-in-Motion (VWIM) (2004)

Closed Technologies

The following Technologies have been placed in Closed Status

• Cable Median Barrier (CMB) (2004)
• Thermal Imaging Safety Screening System (TISS) (2003)
• Highway Rail Warning System (HRX) (2003)
• Ground Penetrating Radar (GPR) (2003)
• Air Void Analyzer (AVA) (2002)
• Global Positioning System (GPS) (2002)
• ITS in Work Zone Safety (ITS-WZS) (2001)
• Accelerated Construction Technology (ACT) (2001)
• Prefabricated Bridge Elements (PBE) (2001)
• Fiber-Reinforce Repair on Overhead Sign Structures (FRP-OSS) (2003)

Additional Selected Technologies

This year, two technologies were selected to be spotlighted by TIG. They are:
  • Web-based Comment Collection
  • High Definition 3D Surveying

One page fact sheets for these technologies are currently on the TIG website.

Nomination Process

The 2010 TIG Nomination process is now closed. The Executive Committee will review the nominations, and announce the 2010 Focus Technologies sometime in early 2010.
**AASHTO/ACEC JOINT COMMITTEE**

**Officers:**
Co-Chair Paul Mattox, WV  
Co-Chair David Oates, Oates Associates, Inc.

**Co-Secretaries:**
- **AASHTO** - Ken Kobetsky, Program Director for Engineering  
- **ACEC** - Ms. Vivian Moeglein, Professional Staff Liaison

Michelle Maggiore P.E. Program Director for Planning and Policy  
Mr. Matthew Reiffer, Professional Staff Liaison

The joint committee meets on Thursday evening, October 22, 2009. What follows is a copy of its meeting agenda.

**AASHTO/ACEC JOINT COMMITTEE MEETING**
Springs Ballroom F — Palm Desert, CA  
*Thursday, October 22, 2009 from 6:00 PM to 9:00 PM*

1. **Call to Order**
   - Co-Chairs Paul Mattox, WV and David Oates, ACEC
     - a. Self Introductions (*Roster Enclosed*)
     - b. Joint Committee Membership Updates
       - Co-Secretaries: Ken Kobetsky and Michelle Maggiore, AASHTO  
       - Vivian Moeglein and Matthew Reiffer, ACEC
     - c. Approval of the Minutes from May 14, 2009

2. **American Recovery and Reinvestment Act (ARRA)**
   - King W. Gee, FHWA

3. **Discussion Item – Impact of Economic Conditions on Program Management**
   - a. Cost Cutting Initiatives at State DOTs and Firms
   - b. Long-range Project Planning
   - D. Oates

4. **Legislation**
   - John Horsley, AASHTO
     - b. Authorization Update

5. **Performance and Program Management**
   - Co-Chairs Paul Mattox and Oates
     - a. International Performance Management Scan
     - K. Gee, FHWA
     - i. SCOPM and Pavement / Bridges / Safety Metrics
     - Tony Kane, AASHTO
     - ii. Performance-based Planning and Programming Peer Exchange
     - M. Maggiore, AASHTO
     - iii. AASHTO-AMPO Performance Workgroup
     - J. Oakley, AASHTO
     - c. FHWA Office of Innovative Program Delivery
     - K. Gee, FHWA

6. **Design and Construction Discussion**
   - Co-Chairs Paul Mattox and Oates
     - a. Update on *Best Practices in the Management of Design Errors and Omissions*
     - Jim McDonnell, AASHTO
     - b. FHWA Rulemaking on Regulations Governing Administration of Engineering and Design Contracts
     - V. Moeglein, ACEC and K. Gee, FHWA

7. **Audit Guide**
   - Co-Chairs Paul Mattox and Oates
     - Jerry Jones, MI DOT; J. Basso, AASHTO; Lynda Konomos, ACEC
     - b. Educational Initiative on Audit Guide Updates
     - Vivian Moeglein, ACEC

8. **Old Business**
   - Co-Chairs Paul Mattox and Oates
     - a. National Marketing Update – *Words that Work!*
     - Sherry Appel, AASHTO
     - b. Improving the Quality of Environmental Documents
     - Shannon Eggleston, AASHTO

9. **New Business**
    - Charting the Course – Highway Safety Manual (HSM)
    - K. Kobetsky, AASHTO

10. **Next Meeting — date and place to be determined for spring 2010.**

11. **Adjourn**
**Summary of Activities and Accomplishments from October 2008 to October 2009:**

<table>
<thead>
<tr>
<th>Technical Committee</th>
<th>Date</th>
<th>Lead State(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTCD</td>
<td>January 2009</td>
<td>Tennessee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate, install, and evaluate winter 2008 – summer 2008 flexible delineators and work zone drums field and laboratory testing. Publish and distribute final report.</td>
</tr>
<tr>
<td>PMCS&amp;FAP</td>
<td>February 2009</td>
<td>North Carolina</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate field evaluation of portable changeable message signs and flashing arrow panels. Publish and distribute a final report.</td>
</tr>
<tr>
<td>CADD</td>
<td>March 2009</td>
<td>Minnesota, Missouri</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate laboratory evaluations of concrete admixtures. Publish and distribute final report.</td>
</tr>
<tr>
<td>CCC</td>
<td>March 2009</td>
<td>Minnesota, Kansas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate laboratory evaluations of concrete curing compounds. Publish and distribute final report.</td>
</tr>
<tr>
<td>SSM</td>
<td>April 2009</td>
<td>Virginia, Louisiana, Minnesota, Arizona and Missouri</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate fabrication and install test panels for 2009-2012 cycle of testing for sign sheeting materials. Field evaluation racks are at four locations nationally. Publish previous year’s data on DataMine.</td>
</tr>
<tr>
<td>RUP</td>
<td>April 2009</td>
<td>Louisiana, Minnesota, Arizona and Missouri</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate, fabricate, and install 2009 “Roll Up Signing Materials” test deck at three field locations. Evaluate products and publish reports.</td>
</tr>
<tr>
<td>PMM</td>
<td>Ongoing</td>
<td>Florida (09), Pennsylvania (Lab and 08), Wisconsin (07), Louisiana (Lab), Minnesota, Mississippi and Mississippi State University (06)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate, install, and evaluate a pavement marking deck in Florida, Pennsylvania, Wisconsin and Mississippi. Conduct routine readings on test decks installed in previous years. Perform laboratory testing (Louisiana and Pennsylvania). Post data on DataMine.</td>
</tr>
<tr>
<td>TTCD</td>
<td>August 2008</td>
<td>Tennessee</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate, install, and evaluate summer 2009 – winter 2009 flexible delineators and work zone drums field test deck in Tennessee. Publish and distribute final report.</td>
</tr>
<tr>
<td>RPM</td>
<td>Fall 2008</td>
<td>Georgia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate, install, and evaluate raised pavement marker “sun country” field test deck in Georgia. Conduct laboratory testing on products. Publish and distribute reports.</td>
</tr>
<tr>
<td>Technical Committee</td>
<td>Date</td>
<td>Lead State(s)</td>
</tr>
<tr>
<td>SRPM</td>
<td>Fall 2008</td>
<td>Ohio, Georgia, Florida</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate, install, and evaluate snowplowable raised pavement marker field test deck in Ohio. Conduct laboratory testing on products. Publish and distribute reports.</td>
</tr>
<tr>
<td>RSCP</td>
<td>Fall 2008</td>
<td>Ohio, Kansas, New York</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate, install, and evaluate rapid set concrete patch field test deck. Conduct laboratory testing on products. Publish and distribute reports.</td>
</tr>
</tbody>
</table>
SCOH Business Agenda
IV. Summary of SCOH Ballots
V. Activity Reports
Palm Desert, California – October 24, 2009

GTX QUARTERLY New York, Washington
Quarterly solicitation and laboratory evaluation of geotextiles. Publish and distribute hard copy test reports and post results via the Internet and NTPEP DataMine.

ECP QUARTERLY Wisconsin, TRI/Environmental
Quarterly solicitation and laboratory evaluation of Erosion Control Products. Publish and distribute hard copy test reports and post results via the Internet and NTPEP DataMine.

SSC ONGOING Kentucky and KTA-Tator

REGEO ONGOING Washington, New York, TRI/Environmental
Coordinate, sample, and test geosynthetic soil reinforcement materials. Publish reports online.

NTPEP Audit Program
PIPE ONGOING Kansas, Washington, TRI/Environmental
NAP conducted over 35 audits on manufacturing locations across the country and in Canada. Continue to add new facilities and are looking for more states to adopt this program.

REBAR ONGOING Texas
NAP conducted over 20 audits on reinforcing plants across the country and in Canada. Continue to add new facilities and are looking for more states to adopt this program.

NTPEP staff maintains the committee website, http://www.ntpep.org. The program’s success is largely due to public-private partnerships. Therefore presentations are made at various regional and national conferences and liaison reports are provided to other AASHTO committees.

Names of other committees involved or with an interest in each activity:
- Subcommittee on Construction
- Subcommittee on Materials
- Subcommittee on Maintenance
- Subcommittee on Traffic Engineering

Dates and Locations of Future Committee Meetings:
- NTPEP 2010 annual meeting of the NTPEP Committee
  o Dates: May 8-13, 2010
  o Location: Orlando, Florida
- NTPEP 2011 annual meeting of the NTPEP Committee
  o Dates: May, 2011
  o Location: Texas
**Introduction**

The committee will review and make a final decision on the following U.S. Route/Bike Route Number applications Friday, October 23, 2009, at Palm Desert, California. What follows are the applications from member departments regarding their US Route Number requests.

<table>
<thead>
<tr>
<th>Member Department</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alabama US 431</strong></td>
<td>Route begins at MP 90.632 near Pittsvieu, Alabama South to end at MP 80.645 (1.056 Miles North of the Barbour County line in Alabama. This facility is a new alignment traveling south near Pittsvieu and Glenville, AL. The length is approximately 9.563 miles and ends at MP 80.645.</td>
</tr>
<tr>
<td><strong>Kansas US 50 Business</strong></td>
<td>The route beings at the east side of Dodge City where it leaves its parent route. Currently it passes through the central portion of the city over an existing facility traveling west towards Dodge City. The route's length is 8 miles and ends at the west side of Dodge City where it re-joins its parent route.</td>
</tr>
<tr>
<td><strong>Kansas US 59</strong></td>
<td>The change in this route is between the US-56/US-59 junction west of Baldwin City, MP 67, and the junction of US-59 and I-35 south of Ottawa, MP 82. The new alignment will bypass the city of Ottawa to the east side. This is a four-lane divided, full access controlled facility with portions being on new alignment. The route travels south to Ottawa, Kansas, its length is 10 miles, and the change ends at the junction of US-59 and I-35 at the south edge of Ottawa.</td>
</tr>
<tr>
<td><strong>Kansas US 400</strong></td>
<td>The route begins at the eastern edge of Dodge City at the intersection of US-56. It ravelas south and west along with US-56 to a new intersection at a point on the southwest edge of the city, then north on a new alignment to join US-50 at the west side of the city. Some portions are new two-lane roadways going west to Dode City. length is 10 miles and the new alignment ends at MP 354 where it rejoin US-50, just west of Dodge City.</td>
</tr>
<tr>
<td><strong>New York I-781 (Future I-781)</strong></td>
<td>The proposed route begins at MP 158.4 on I-82, located .7 miles north of existing Exit 48 (Route 342). The proposed route will begin at a new interchange on I-82 and provide a direct connection to Fort Drum. It will travel over a new, fully controlled access, four-lane, divided highway. Direction of Travel is East - West near the focal point of For Drum - US Military Reservation. It will directly connect the Fort to interstate travel to the south and international travel to the north. The route is 4.9 miles in length and will end at the Fort Drum boundary at the location of the North Gate (main gate).</td>
</tr>
<tr>
<td><strong>North Carolina I-485 Application</strong></td>
<td>Interstate Fulfillment of Conditional Approval</td>
</tr>
<tr>
<td><strong>North Carolina I-485 FHWA Correspondence</strong></td>
<td>I-485 From I-85 west of Charlotte clockwise to I-77 (11.95 miles addition) (approved by FHWA as part of the interstate system on May 14, 2009)</td>
</tr>
</tbody>
</table>

FHWA approval 4/13/2009 as future part of the interstate (included in file)
<table>
<thead>
<tr>
<th>Member Department</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Carolina US 64</td>
<td>The route begins at the intersection of US 64 with the new US 64 alignment, 0.16 mile east of the US 64 intersection with US 19/74/129 in the Town of Murphy. The route terminates upon returning to the existing alignment of US 64, approximate 4.38 miles east of the beginning of the new alignment.</td>
</tr>
<tr>
<td>North Carolina US 258</td>
<td>The route begins at the intersection of US 258 and US 264 Alt. on the southern side of Farmville on an existing facility. US 258 travels eastward common with US 264 Alt. for approximately 0.46 mile then follows the alignment of SR 1221 northward for a length of 2.49 miles, intersection with the interchange of US 264, then following common with US 264 westward until the route reconnects with the original alignment of US 258 on the north side of Farmville. The 6.21 mile route ends where it reconnects with the original alignment of US 258 at the interchange with US 264 and S 258 north of Farmville.</td>
</tr>
<tr>
<td>North Carolina US 258 Business</td>
<td>US Route 258 begins at the intersection of US 258 and US 264 Alternate south of Farmville, approximately 1.13 mile north of the Pitt/Green county line. The route travels through the central business district of Farmville, NC over existing alignment of US 258 North and is 3.21 miles ending at the interchange of US 258 and US 264, North of Farmville.</td>
</tr>
<tr>
<td>North Carolina US 311 Bus</td>
<td>US 311 Business begins at the intersection of US 311 and I-85 Business, approximate 1.50 miles north of the Randolph/Guilford County line traveling through the central business district of High Point and rejoins with US 311 to the north of High Point over the existing alignment of US 311 Business for 6.50 miles and terminates upon returning to the current alignment of US 311 approximately 0.20 mile east of the Davidson/Guilford County line, north of High Point at US 311 (exit 25).</td>
</tr>
<tr>
<td>North Carolina US 421</td>
<td>US 421 begins at the intersection of US 421 with I-85 (exit 126) raveling west following the alignment of I-85 to the intersection with US 220 (exit 122) where the route becomes I-73/I-85 until I-85 departs at exit 121 and the route continues to follow I-73 until it rejoins the original alignment of US 421 at I-40 (exit 212). The route travels over an existing alignment and over an interstate alignment that for the first two segments was build in 2004 and the third interstate segment built in 2008 going north for 12.50 miles terminating upon returning to the original alignment of US 421 which runs common with I-40 at exit 212.</td>
</tr>
<tr>
<td>Pennsylvania US 15</td>
<td>US 15 begin at SR 287 toward the New York State Line. The new 5.3 mile alignment is northbound and southbound of Lawrenceville, PA. US 15 ties back into pre-existing US 15 at the intersection with Watson Creek Road in New York State.</td>
</tr>
<tr>
<td>South Carolina US 521</td>
<td>US 521 begins at MM 7.13 running northerly crossing US 15 to US 76 Business over an existing facility travels north to Sumter, SC for 5.52 miles ending at US 76 Business.</td>
</tr>
</tbody>
</table>
SPECIAL COMMITTEE ON WIRELESS COMMUNICATIONS TECHNOLOGY

**Officers**

Chair: William A. Brown (Virginia)
Vice Chair: David S. Chase (Vermont)
Secretary:
AASHTO Liaison: William Brownlow

The 2009 Annual SCOWCoT Meeting was held in Irvine, California in conjunction with the Special Committee on Transportation Security and Emergency Management (SCOTSEM) August 24-27, 2009. During this meeting, an update on the development of a Professional Development training course for Radio Frequency Coordination and certification as an AASHTO Frequency Coordinator was presented. The combined committees met to conduct general session meetings before moving to breakout sessions to conduct technical committee business. During the general sessions, presentations by committee members included an update on the status of interoperable communications and transportation’s role as an emergency response provider. Committee members have been active in local and regional planning groups determining radio spectrum allotments to individual responder categories to insure greater interoperability between agencies in the event of a disaster or catastrophe. Under the direction of the Committee, AASHTO filed several comments, reply comments, and petitions with the Federal Communications Commission to further secure transportation’s role in emergency response. Two major initiatives were related to frequency coordination and Traveler Information Stations or Highway Advisory Radio.

Comments were filed with the FCC on petitions regarding TIS (HAR) filed by the American Association of Information Radio Operators (AAIRO) and Quixote Systems which would greatly increase the deployment and allowable content. AASHTO remained silent on some aspects of these petitions and objected to portions affecting the allowable content. AASHTO was joined in its objections by both the National Association of Broadcasters (NAB) and National Public Radio (NPR) along with other members of the Public Safety Community. In response, AASHTO filed a narrowly focused petition on behalf of the New York State Department of Transportation to modify the content rule allowing TIS to carry both AMBER Alerts and references to 5-1-1 systems. AASHTO received the support of both the NAB and NPR. Discussions with the Public Safety and Homeland Security Bureau personnel have indicated the request will be addressed shortly by the full Commission resulting in a favorable ruling on allowable content. This will mark the first change to the regulations governing TIS in over 30 years.

The Committee lacked enough members to constitute a quorum to review and ballot required changes and additions to the specifications and guide documents maintained by the Special Committee.

During the general committee meeting session, members of the Task Group were recognized for their service. Also during the session an update on changes to radio licensing and spectrum utilization was presented on the affect these would have on the daily operations of members on a national level. The importance of the opening of the 700 MHz frequency band for both voice and data communications and how data communications will enhance the implementation and deployment of existing and new ITS systems was stressed. This presentation was gratefully acknowledged as many attendees did not realize the impact these new frequencies would have on daily operations. The Special Committee also stressed its ongoing work in obtaining interoperable communications for coordination with other responders in the areas of emergency response, disaster response and recovery, evacuation planning and execution. Special presentations were made by the American Public Transportation Association which thanked the Committee for its support and assistance in making transit operators aware of pending FCC rule changes.

The SCOWCoT Committee will hold its next annual meeting with the Subcommittee on Systems Operation and Management.